ROCKFORD INSTRUMENT LAB
1718 Broadway
Rockford, IL 61108

SERVICE MANUAL

SERVICE MANUAL

SERVICE MANUAL

SCHEMATIC SUPPLEMENT

2800/2810

(For use with 494-057-9-001)

DYNASCAN CORPORATION
2815 WEST IRVING PARK ROAD
CHICAGO, ILLINOIS 60618

SERVICE MANUAL
SCHEMATIC SUPPLEMENT
2800/2810

INDEX

2800, DCV, 1V 496-124-9-001

2800, ACV, 10V 496-124-9-002

2800, Ω (LO), 100Ω 496-124-9-003

2800, Ω (Hi), 10 Meg Ω 496-124-9-004

2800, DCA, 100 mA 496-124-9-005

2800, ACA, 1000 mA 496-124-9-006

2810, DCV, 1V 496-143-9-001

2810, ACV, 10V 496-143-9-002

2810, High Ohms, 10 Meg Ω 496-143-9-003

2810, Low Ohms, 100Ω 496-143-9-004

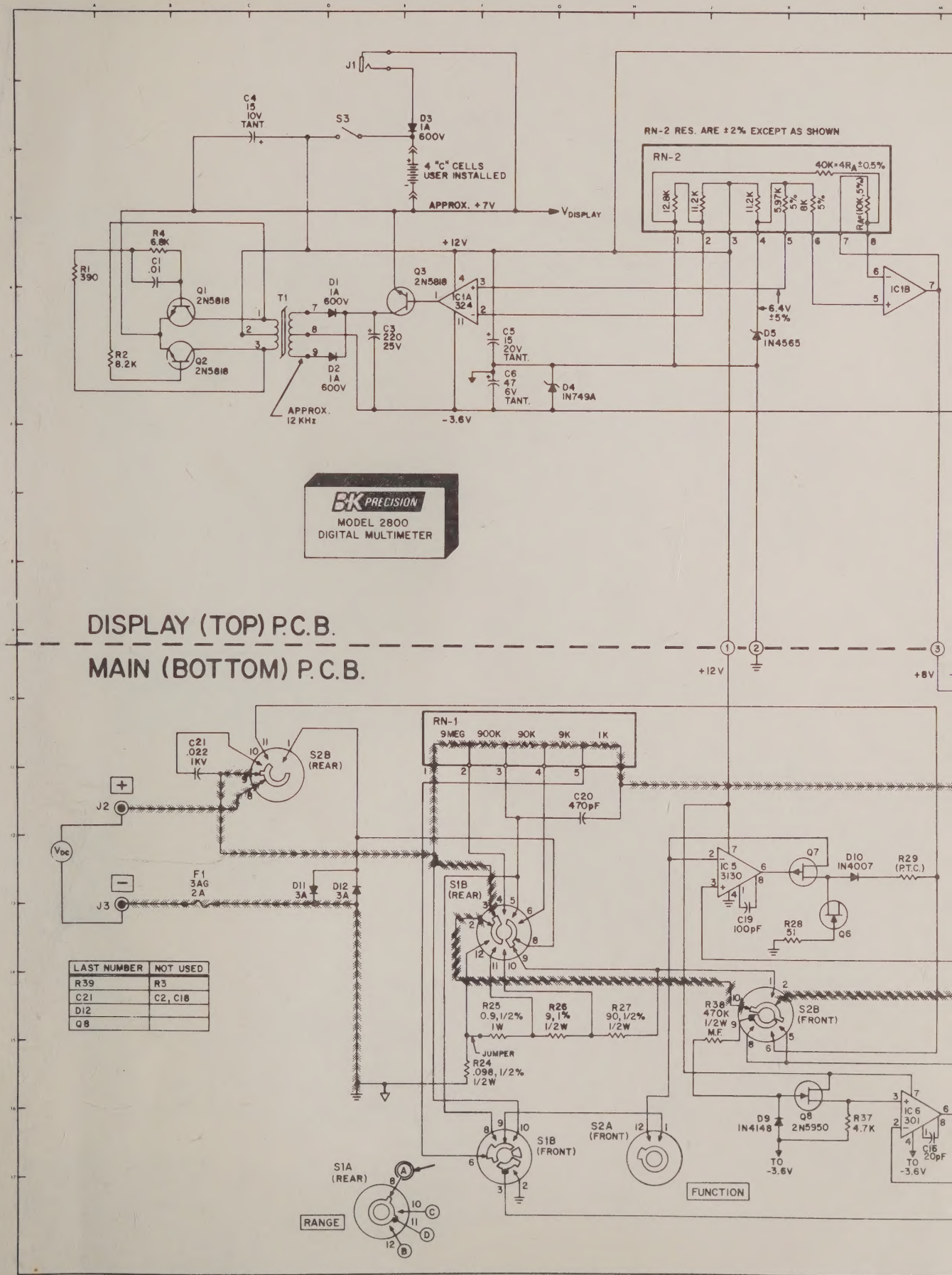
2810, 10Ω, 10Ω 496-143-9-005

2810, DCA, 100 mA 496-143-9-006

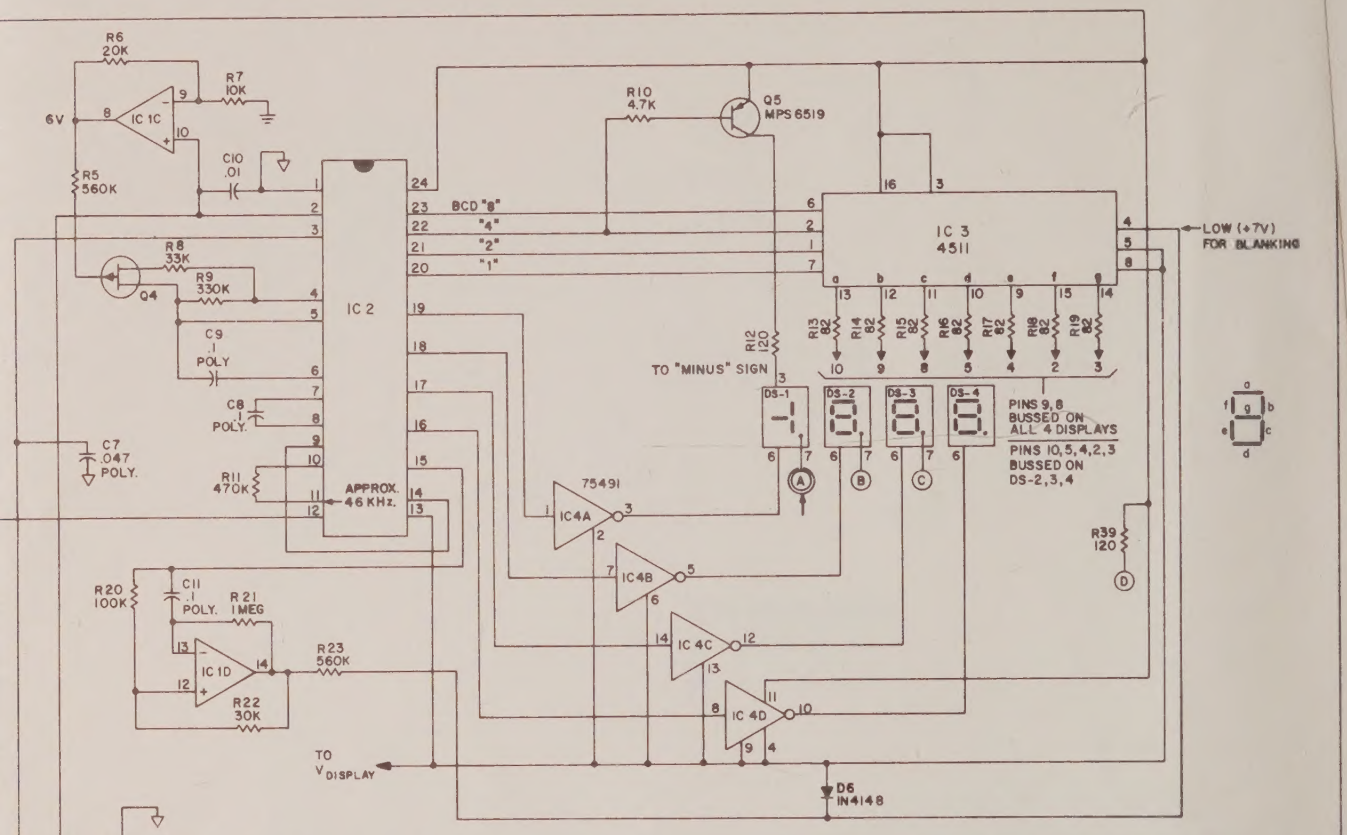
2810, ACA, 1000 mA 496-143-9-007

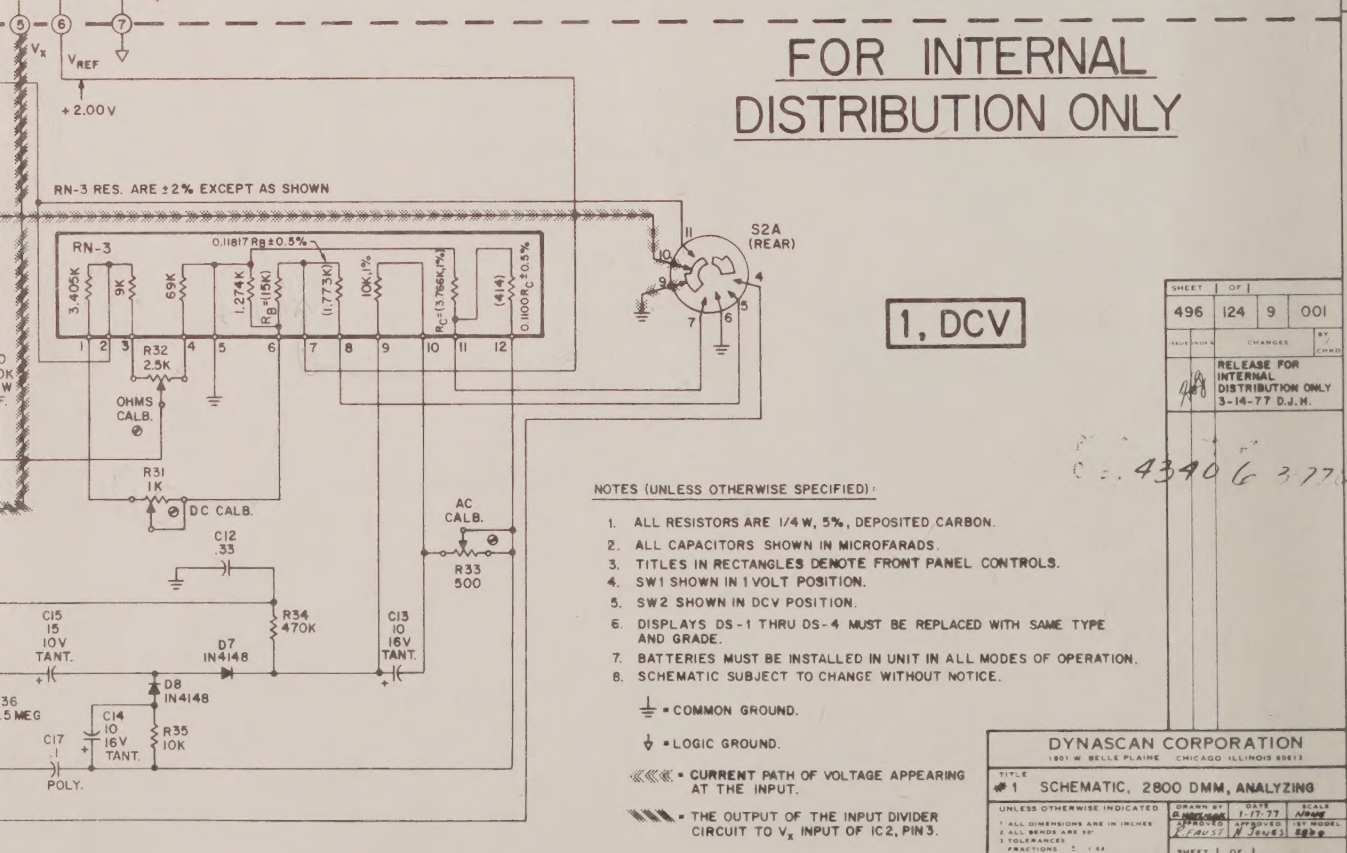
Digitized by the Internet Archive
in 2025

https://archive.org/details/manualsplus_07503



LAST NUMBER	NOT USED
R39	R3
C21	C2, C18
D12	
Q8	





FOR INTERNAL DISTRIBUTION ONLY

1, DCV

SHEET	OF		
496	124	9	001

ISSUE NO.	CHANGES	BY CHKD
	RELEASE FOR INTERNAL DISTRIBUTION ONLY 3-14-77 D.J.H.	

C = .4340 G 3.77 M

NOTES (UNLESS OTHERWISE SPECIFIED):

1. ALL RESISTORS ARE 1/4 W, 5%, DEPOSITED CARBON.
2. ALL CAPACITORS SHOWN IN MICROFARADS.
3. TITLES IN RECTANGLES DENOTE FRONT PANEL CONTROLS.
4. SW1 SHOWN IN 1 VOLT POSITION.
5. SW2 SHOWN IN DCV POSITION.
6. DISPLAYS DS-1 THRU DS-4 MUST BE REPLACED WITH SAME TYPE AND GRADE.
7. BATTERIES MUST BE INSTALLED IN UNIT IN ALL MODES OF OPERATION.
8. SCHEMATIC SUBJECT TO CHANGE WITHOUT NOTICE.

⏚ = COMMON GROUND.

⏚ = LOGIC GROUND.

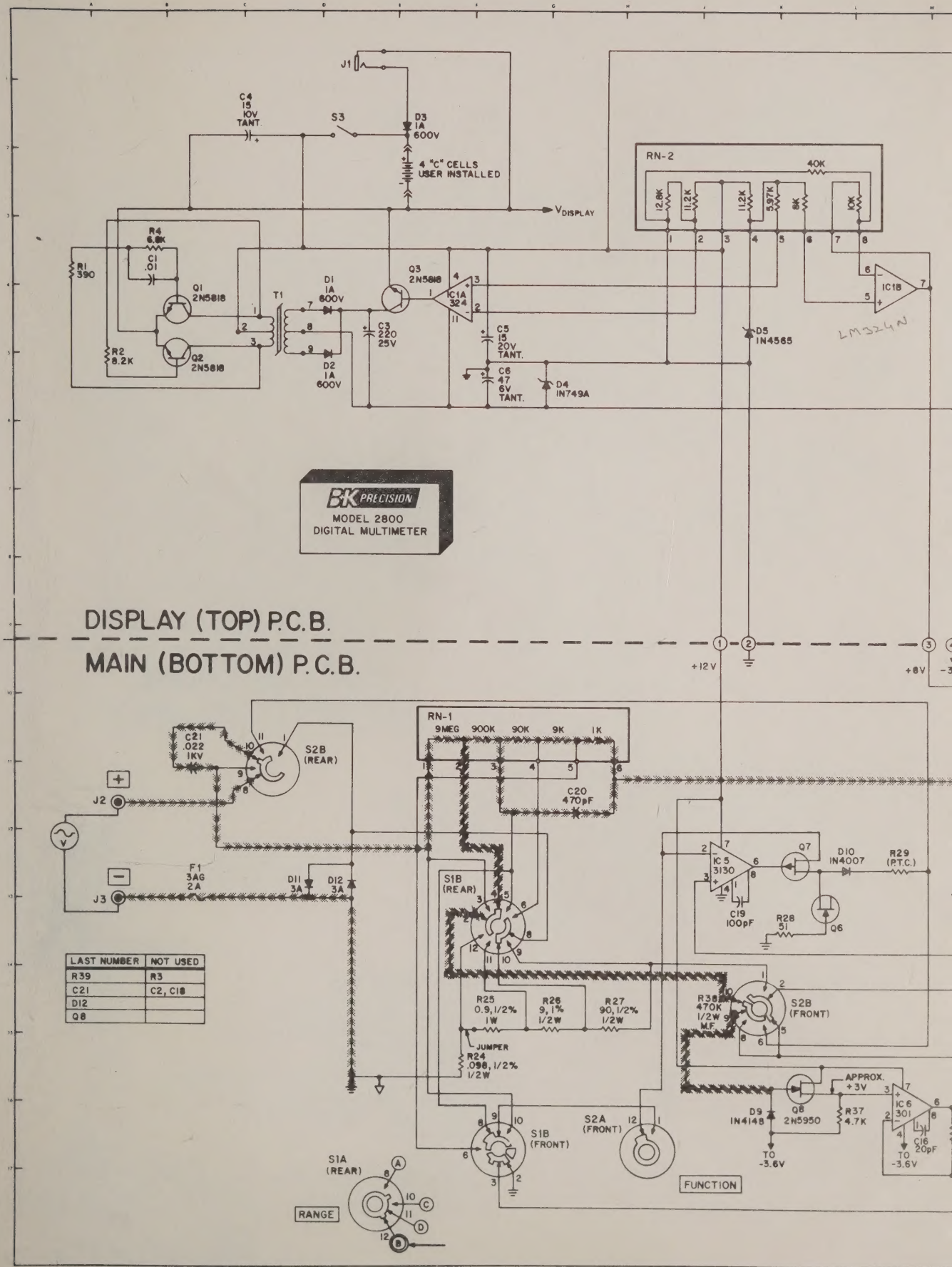
«««« = CURRENT PATH OF VOLTAGE APPEARING AT THE INPUT.

\\\\\ = THE OUTPUT OF THE INPUT DIVIDER CIRCUIT TO V_x INPUT OF IC2, PIN 3.

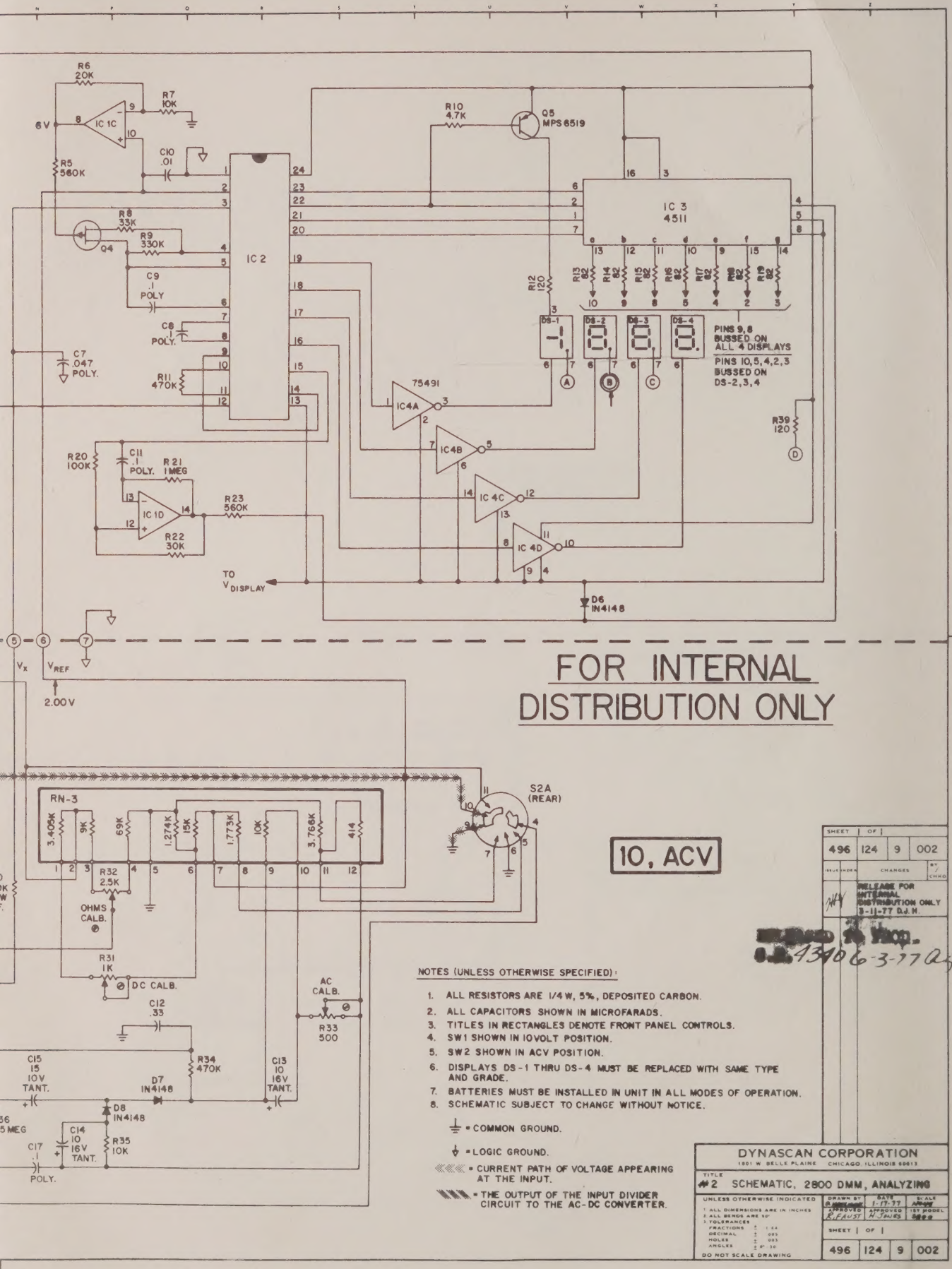
DYNASCAN CORPORATION
1801 W. BELLE PLAINE CHICAGO ILLINOIS 60613

TITLE
#1 SCHEMATIC, 2800 DMM, ANALYZING

UNLESS OTHERWISE INDICATED	DRAWN BY	DATE	SCALE
1 ALL DIMENSIONS ARE IN INCHES 2 ALL BENDS ARE 90° 3 TOLERANCES FRACTIONS ± 1/64 DECIMAL .X ± .03 .XX ± .005 HOLES ± .003 ANGLES ± 0° 30'	[illegible]	1-17-77	NONE
	APPROVED E FAUST	APPROVED H JONES	1ST MODEL
	SHEET	OF	
DO NOT SCALE DRAWING	496	124	9 001



LAST NUMBER	NOT USED
R39	R3
C21	C2, C18
D12	
Q8	



FOR INTERNAL DISTRIBUTION ONLY

10, ACV

SHEET	OF		
496	124	9	002

SUPERSEDES	CHANGES	BY / CHKD
	RELEASED FOR INTERNAL DISTRIBUTION ONLY 3-11-77 D.J.H.	

43406-3-77 Q4

NOTES (UNLESS OTHERWISE SPECIFIED):

1. ALL RESISTORS ARE 1/4 W, 5%, DEPOSITED CARBON.
2. ALL CAPACITORS SHOWN IN MICROFARADS.
3. TITLES IN RECTANGLES DENOTE FRONT PANEL CONTROLS.
4. SW1 SHOWN IN 10VOLT POSITION.
5. SW2 SHOWN IN ACV POSITION.
6. DISPLAYS DS-1 THRU DS-4 MUST BE REPLACED WITH SAME TYPE AND GRADE.
7. BATTERIES MUST BE INSTALLED IN UNIT IN ALL MODES OF OPERATION.
8. SCHEMATIC SUBJECT TO CHANGE WITHOUT NOTICE.

⏚ = COMMON GROUND.

⏚ = LOGIC GROUND.

= CURRENT PATH OF VOLTAGE APPEARING AT THE INPUT.

= THE OUTPUT OF THE INPUT DIVIDER CIRCUIT TO THE AC-DC CONVERTER.

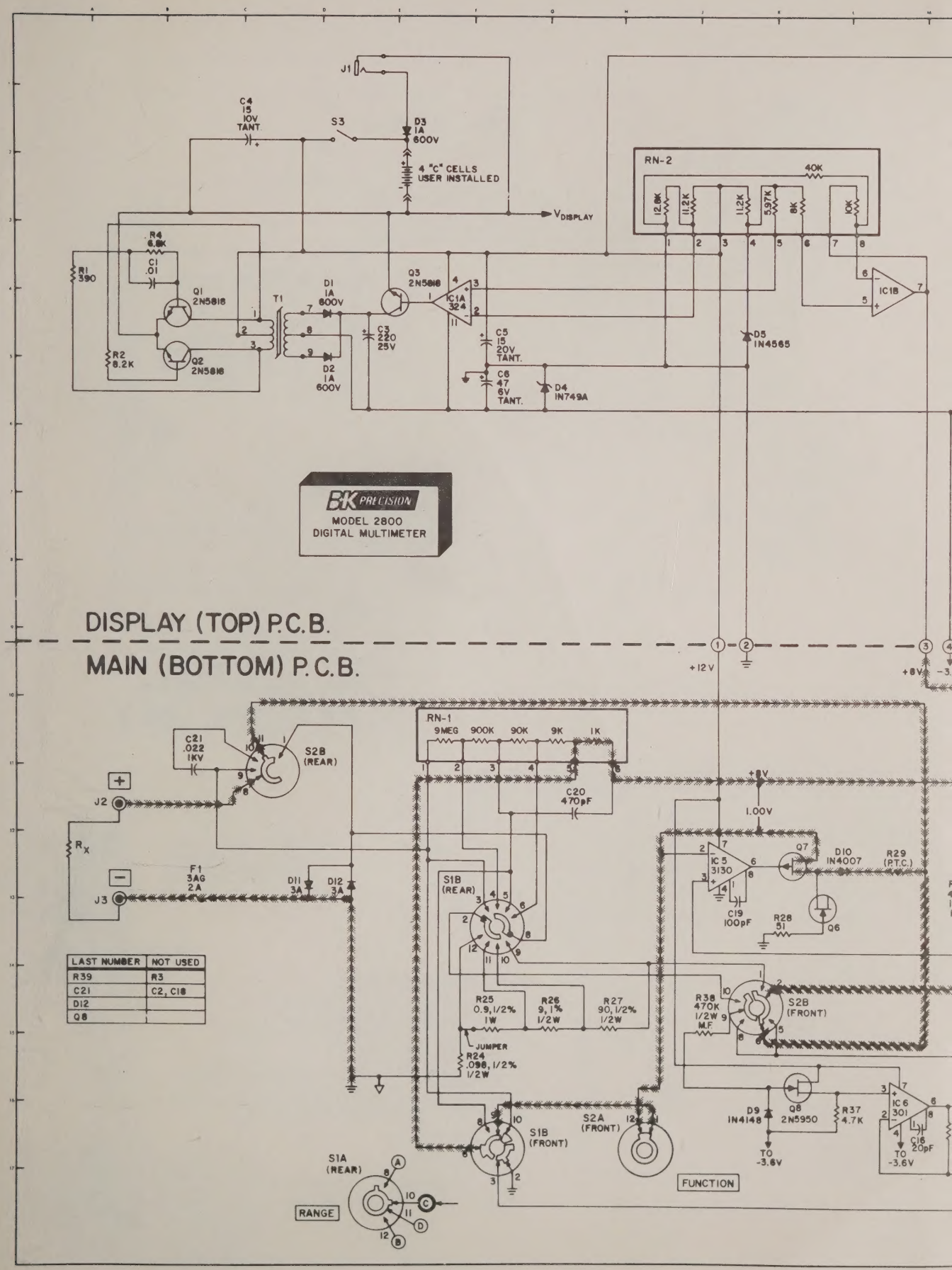
DYNASCAN CORPORATION
1801 W. BELLE PLAINE CHICAGO, ILLINOIS 60613

TITLE
#2 SCHEMATIC, 2800 DMM, ANALYZING

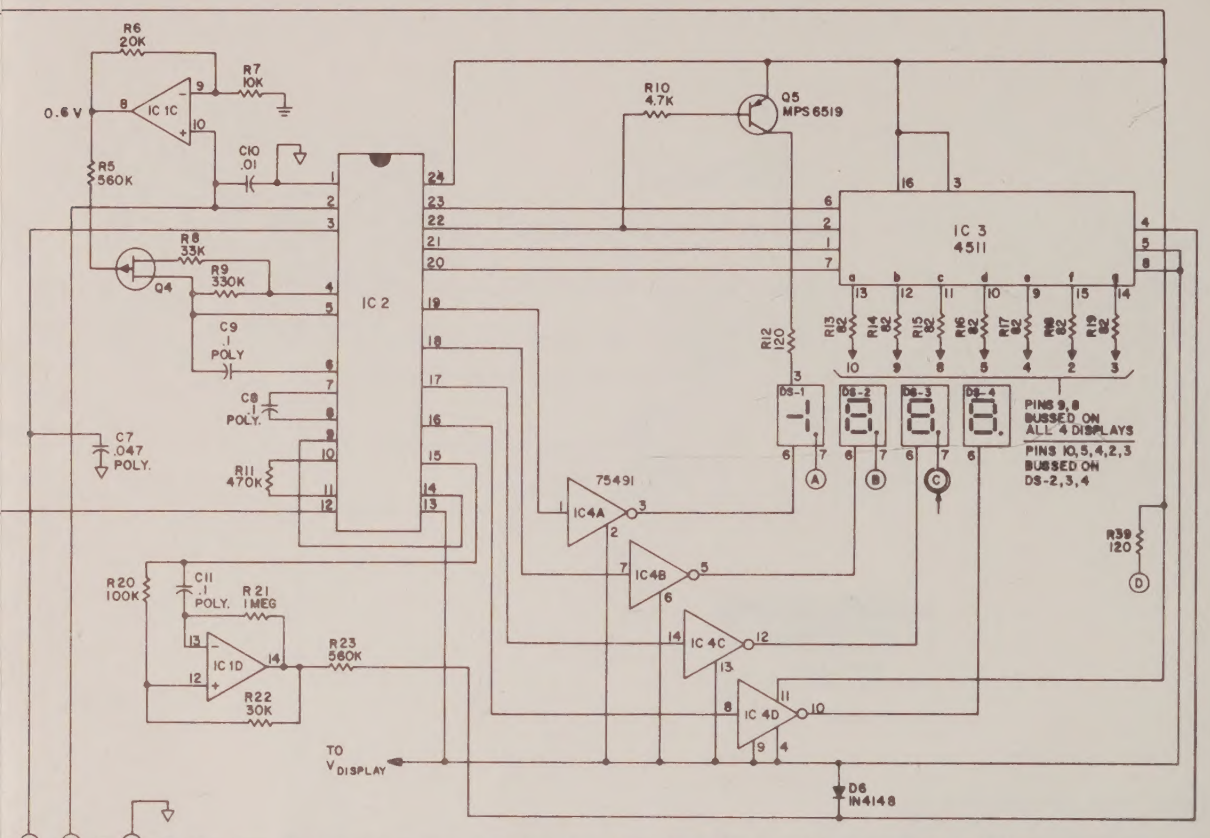
UNLESS OTHERWISE INDICATED	DRAWN BY	DATE	SCALE
1. ALL DIMENSIONS ARE IN INCHES 2. ALL BENDS ARE 90° 3. TOLERANCES FRACTIONS ± 1/64 DECIMAL ± .005 HOLES ± .003 ANGLES ± 0° 30'	[illegible]	1-17-77	AS NOTED
	APPROVED R. FAUST	APPROVED H. JONES	1ST MODEL 2800

DO NOT SCALE DRAWING

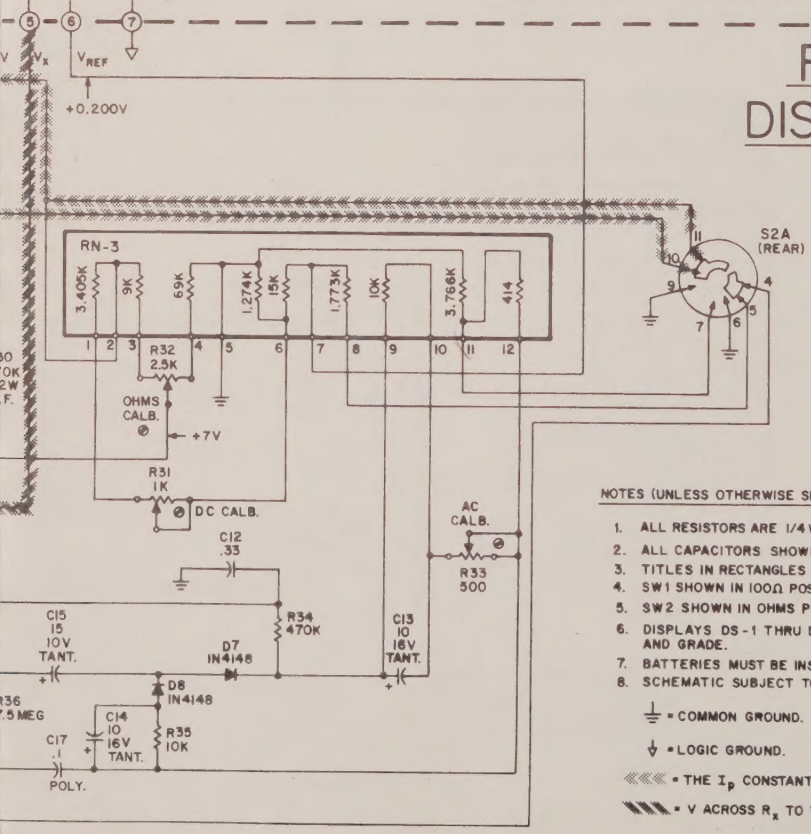
SHEET	OF		
496	124	9	002



LAST NUMBER	NOT USED
R39	R3
C21	C2, C18
D12	
Q8	



FOR INTERNAL DISTRIBUTION ONLY



NOTES (UNLESS OTHERWISE SPECIFIED):

1. ALL RESISTORS ARE 1/4 W, 5%, DEPOSITED CARBON.
2. ALL CAPACITORS SHOWN IN MICROFARADS.
3. TITLES IN RECTANGLES DENOTE FRONT PANEL CONTROLS.
4. SW1 SHOWN IN 100Ω POSITION.
5. SW2 SHOWN IN OHMS POSITION.
6. DISPLAYS DS-1 THRU DS-4 MUST BE REPLACED WITH SAME TYPE AND GRADE.
7. BATTERIES MUST BE INSTALLED IN UNIT IN ALL MODES OF OPERATION.
8. SCHEMATIC SUBJECT TO CHANGE WITHOUT NOTICE.

⏚ = COMMON GROUND.

⏚ = LOGIC GROUND.

◀◀◀ = THE I_p CONSTANT CURRENT SOURCE PATH.

▨ = V ACROSS R_x TO V_x INPUT OF IC2, PIN 3.

SHEET	OF		
496	124	9	003

ISSUE NUMBER	CHANGES	BY / CHKD
1A	RELEASE FOR INTERNAL DISTRIBUTION ONLY 3-11-77 D.J.H.	

RELEASED TO PROD.
C.N. 4340 6-3-77 as

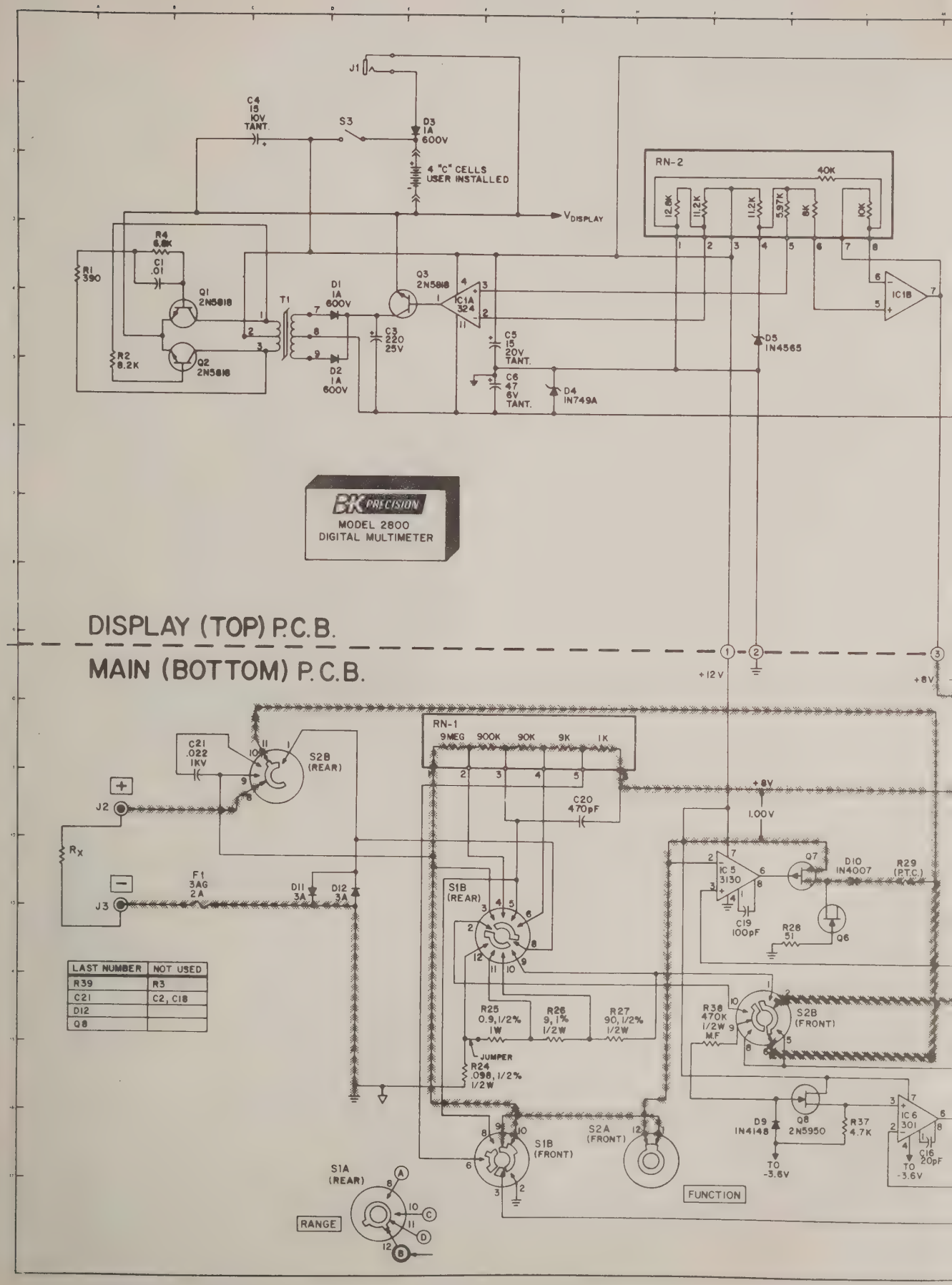
DYNASCAN CORPORATION
1801 W. BELLE PLAINE CHICAGO, ILLINOIS 60613

TITLE: #3 SCHEMATIC, 2800 DMM ANALYZING

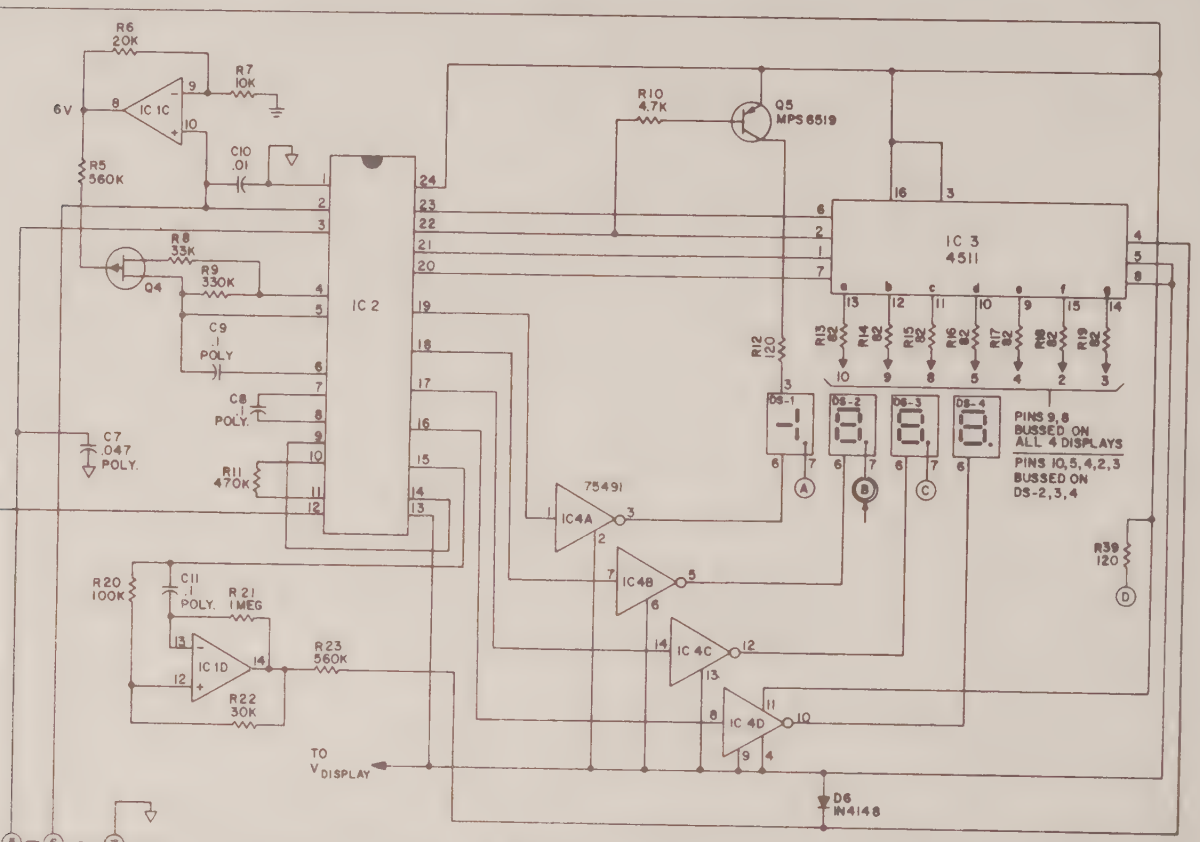
UNLESS OTHERWISE INDICATED
1. ALL DIMENSIONS ARE IN INCHES
2. ALL BENDS ARE 90°
3. TOLERANCES
FRACTIONS ± 1/64
DECIMAL ± .005
HOLES ± .003
ANGLES ± 0° 30'
DO NOT SCALE DRAWING

DRAWN BY	DATE	SCALE
R. MCCOOK	1-17-77	NONE
APPROVED R. FAUST	APPROVED H. JONES	1ST MODEL 2800

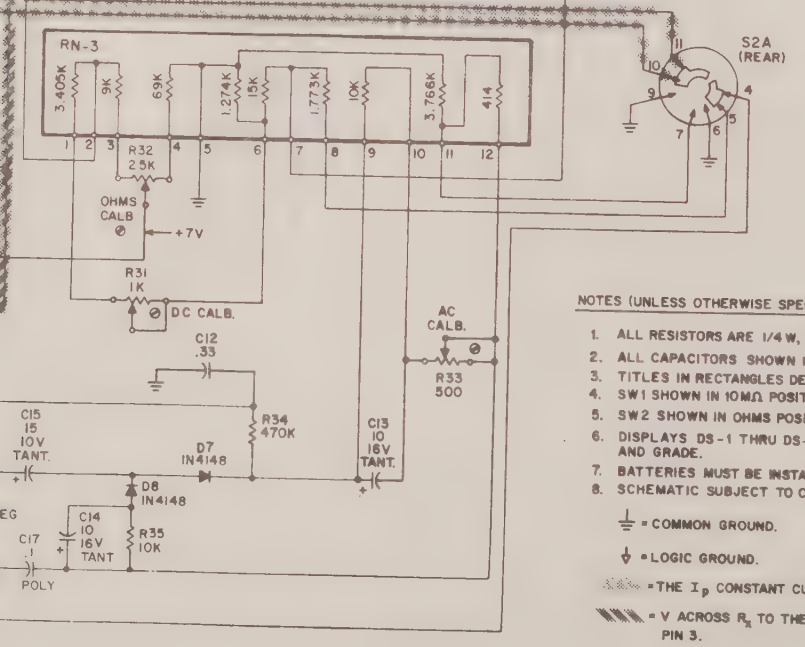
SHEET	OF		
496	124	9	003



LAST NUMBER	NOT USED
R39	R3
C21	C2, C18
D12	
Q8	



FOR INTERNAL DISTRIBUTION ONLY



10MΩ,Ω(HI)

SHEET	OF		
496	124	9	004

	CHANGES	BY CHG
4340	RELEASE FOR INTERNAL DISTRIBUTION ONLY 3-11-77 D.J.M.	

RELEASED TO PROD.
4340 6-3-77

NOTES (UNLESS OTHERWISE SPECIFIED):

1. ALL RESISTORS ARE 1/4 W, 5%, DEPOSITED CARBON.
2. ALL CAPACITORS SHOWN IN MICROFARADS.
3. TITLES IN RECTANGLES DENOTE FRONT PANEL CONTROLS.
4. SW1 SHOWN IN 10MΩ POSITION.
5. SW2 SHOWN IN OHMS POSITION.
6. DISPLAYS DS-1 THRU DS-4 MUST BE REPLACED WITH SAME TYPE AND GRADE.
7. BATTERIES MUST BE INSTALLED IN UNIT IN ALL MODES OF OPERATION.
8. SCHEMATIC SUBJECT TO CHANGE WITHOUT NOTICE.

⏚ = COMMON GROUND.

⏚ = LOGIC GROUND.

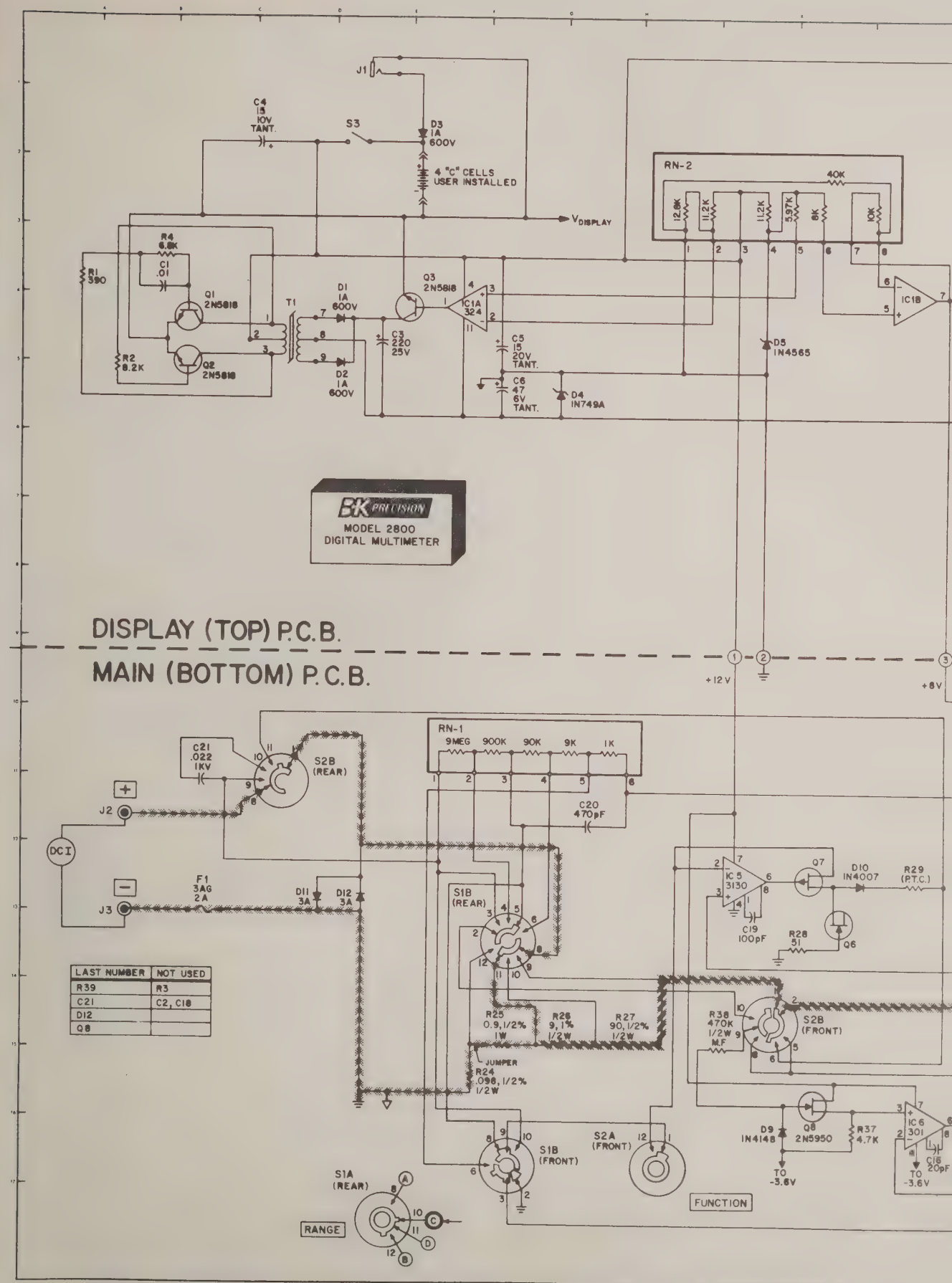
= THE I_p CONSTANT CURRENT SOURCE PATH.

= V ACROSS R_x TO THE V_x INPUT TO IC2, PIN 3.

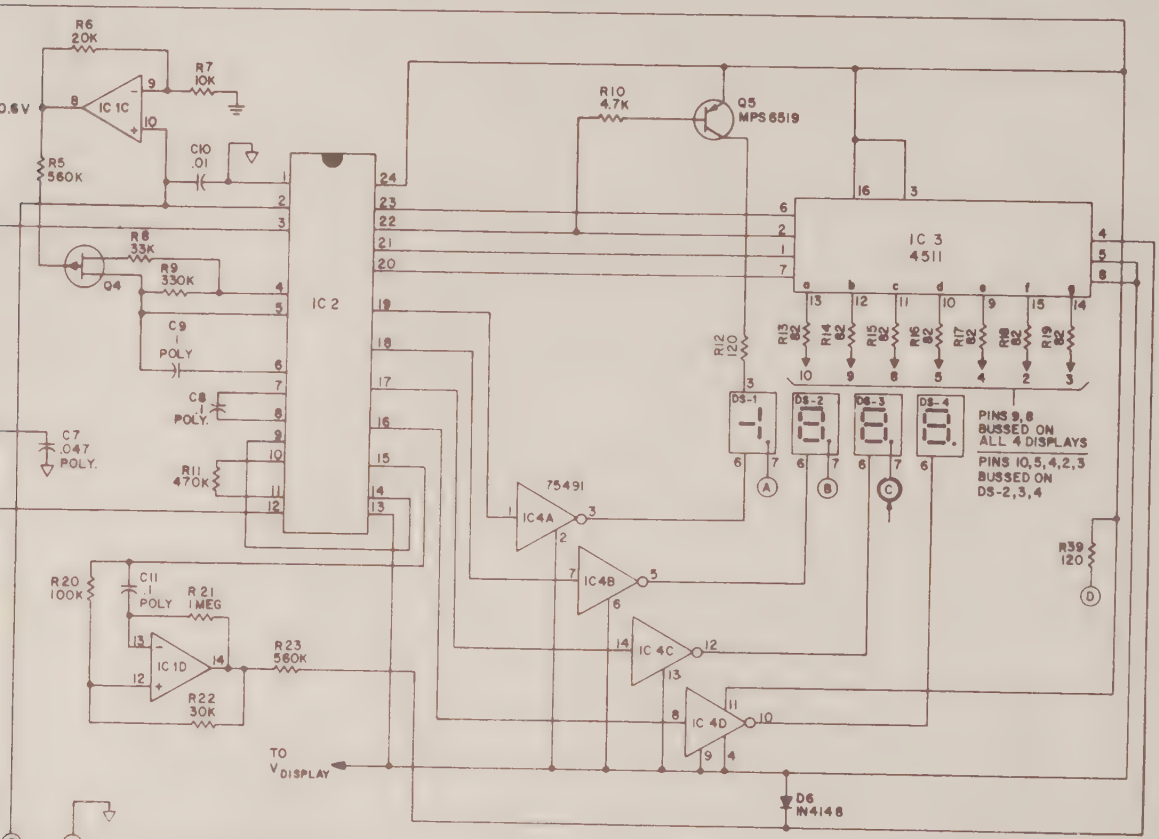
DYNASCAN CORPORATION
1801 W BELLE PLAINE CHICAGO ILLINOIS 60613

TITLE
#4 SCHEMATIC, 2800 DMM ANALYZING

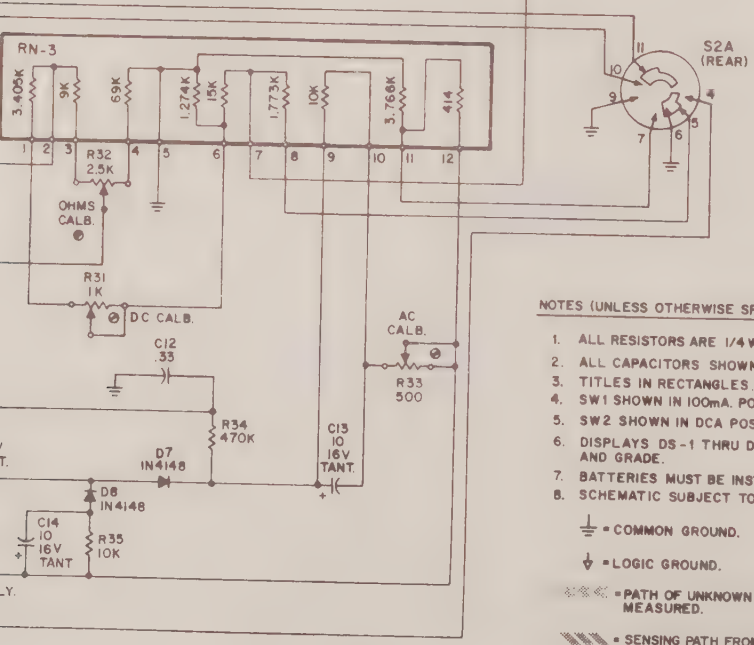
UNLESS OTHERWISE INDICATED	DRAWN BY	DATE	SCALE
1 ALL DIMENSIONS ARE IN INCHES 2 ALL BENDS ARE 90° 3 TOLERANCES FRACTIONS ± 1/64 DECIMAL HOLES ± .005 DECIMAL ANGLES ± .003 ± 0° 15'	APPROVED	1-17-77 APPROVED	NONE 1ST MODEL
DO NOT SCALE DRAWING		K. CAVET W. JONES	2800
	SHEET 1 OF 1		
	496	124	9	004



LAST NUMBER	NOT USED
R39	R3
C21	C2, C18
D12	
Q8	



FOR INTERNAL DISTRIBUTION ONLY



100, DCA

SHEET	OF		
496	124	9	005

LTR	CHANGES	BY / CHKD
	RELEASE FOR INTERNAL DISTRIBUTION ONLY 3-11-77 D. J. H.	

RELEASED TO PROD.
C.N. 4340 6-3-77 DS

NOTES (UNLESS OTHERWISE SPECIFIED):

1. ALL RESISTORS ARE 1/4 W, 5%, DEPOSITED CARBON.
2. ALL CAPACITORS SHOWN IN MICROFARADS.
3. TITLES IN RECTANGLES DENOTE FRONT PANEL CONTROLS.
4. SW1 SHOWN IN 100mA. POSITION.
5. SW2 SHOWN IN DCA POSITION.
6. DISPLAYS DS-1 THRU DS-4 MUST BE REPLACED WITH SAME TYPE AND GRADE.
7. BATTERIES MUST BE INSTALLED IN UNIT IN ALL MODES OF OPERATION.
8. SCHEMATIC SUBJECT TO CHANGE WITHOUT NOTICE.

⏚ = COMMON GROUND.

⏚ = LOGIC GROUND.

= PATH OF UNKNOWN CURRENT BEING MEASURED.

= SENSING PATH FROM CURRENT SHUNTS TO V_{IN} INPUT OF IC2, PIN3.

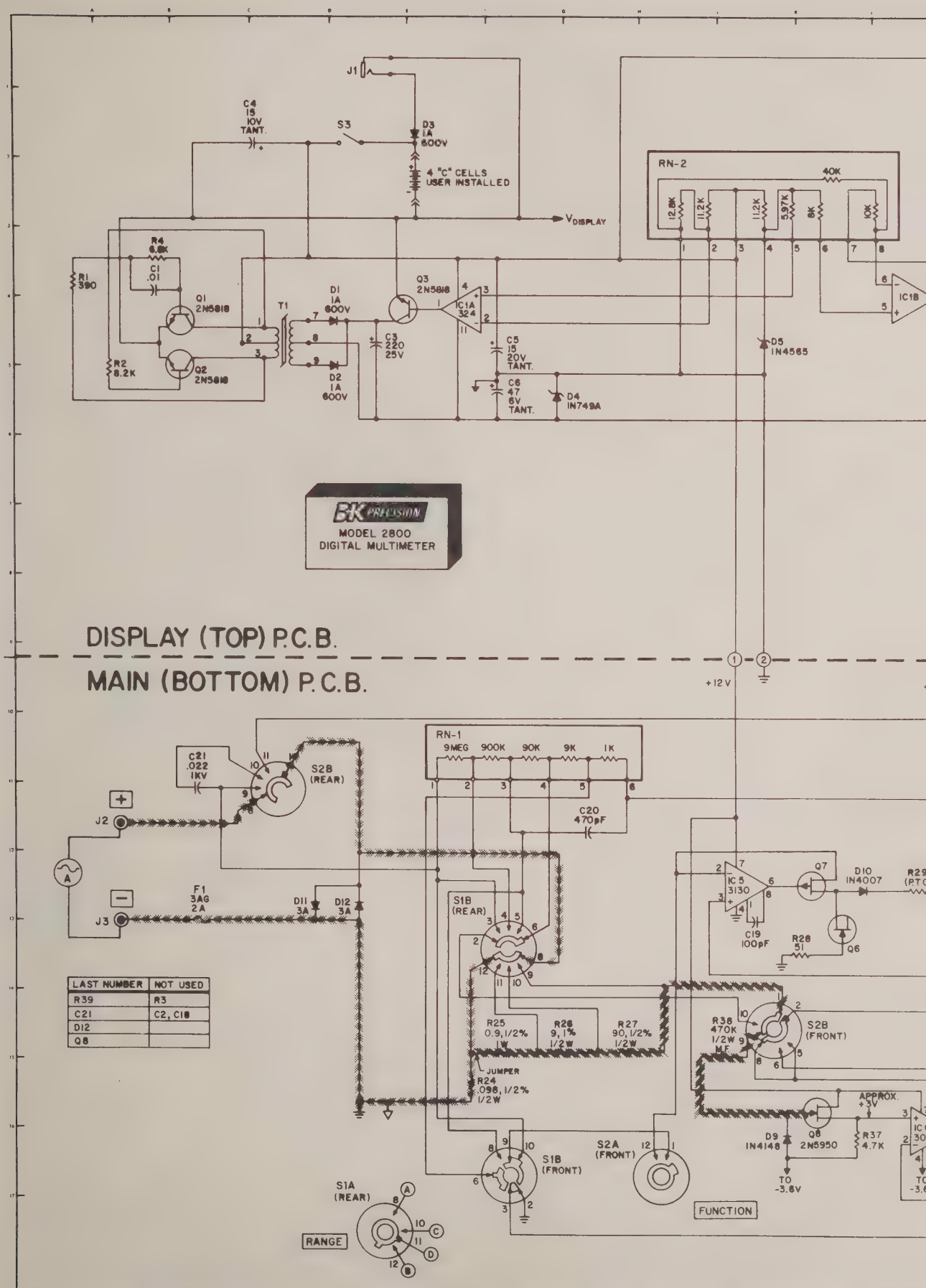
DYNASCAN CORPORATION
1801 W. BELLE PLAINE CHICAGO ILLINOIS 60613

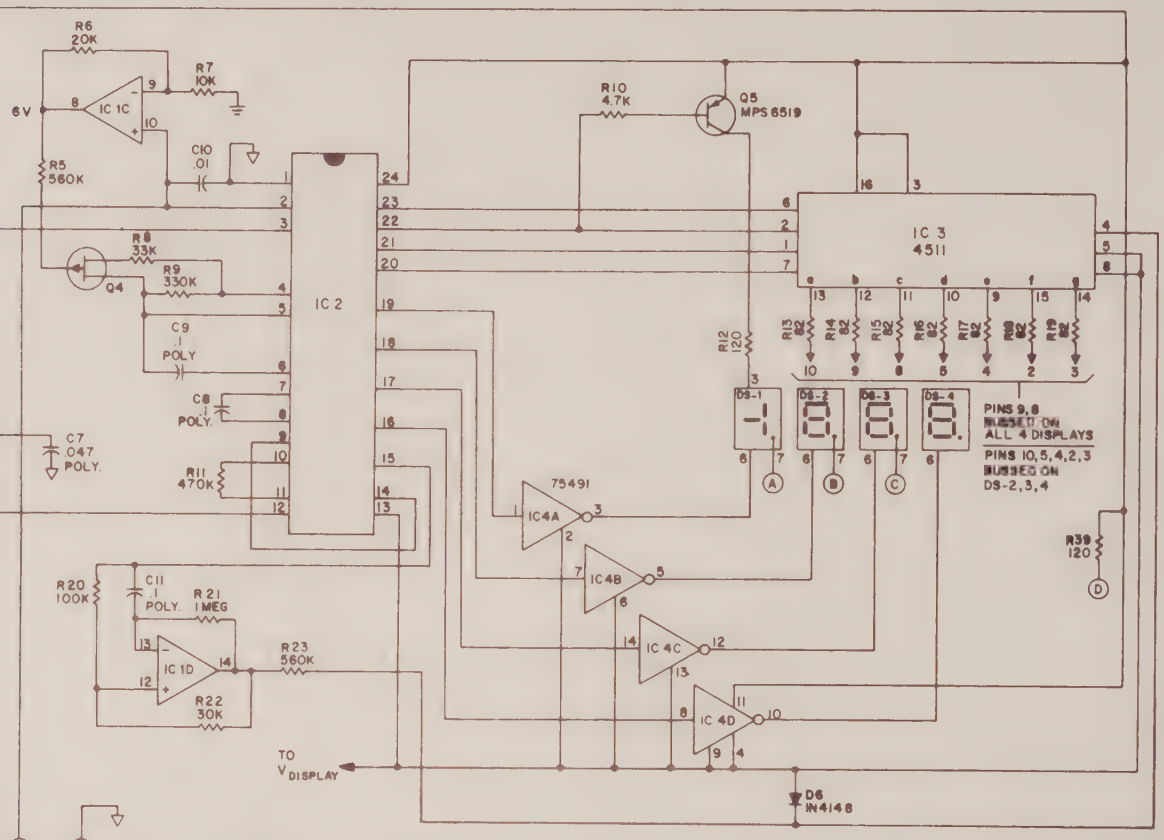
TITLE
#5 SCHEMATIC, 2800 DMM, ANALYZING

UNLESS OTHERWISE INDICATED
1. ALL DIMENSIONS ARE IN INCHES
2. ALL BENDS ARE 90°
3. TOLERANCES
FRACTIONS ± 1/64
DECIMAL ± .005
HOLES ± .003
ANGLES ± 0° 10'
DO NOT SCALE DRAWING

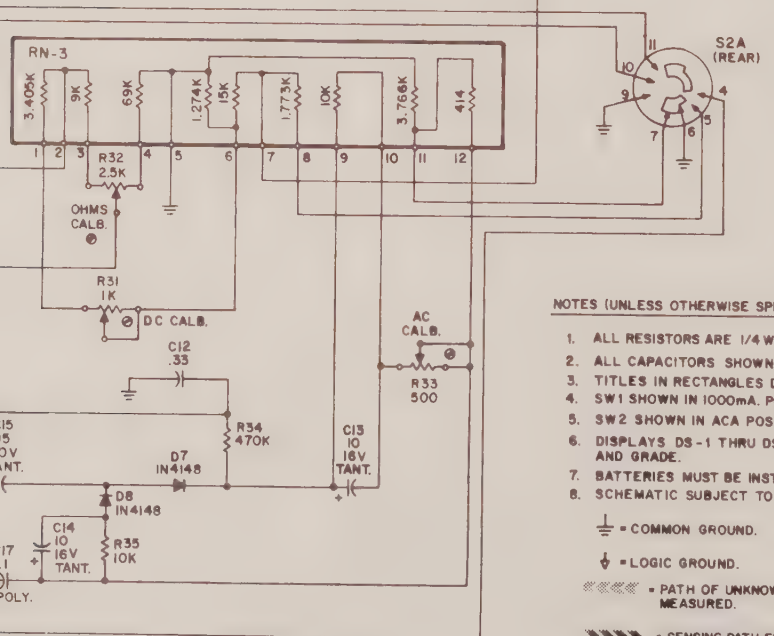
DRAWN BY	DATE	SCALE
D. HAYLOCK	1-17-77	NONE
APPROVED	APPROVED	1ST MODEL
[illegible]	W. Jones	8800

SHEET	OF		
496	124	9	005


J1
C4 15 10V TANT.
S3
D3 1A 600V
4 "C" CELLS USER INSTALLED
V DISPLAY
RN-2
40K
12.8K
11.2K
11.2K
5.97K
8K
10K
R4 6.8K
C1 .01
R1 390
Q1 2N5818
Q2 2N5818
R2 8.2K
T1
D1 1A 600V
D2 1A 600V
Q3 2N5818
IC1A 324
C3 220 25V
C5 15 20V TANT.
C6 47 6V TANT.
D4 IN749A
D5 IN4565
IC1B
B&K PRECISION
MODEL 2800
DIGITAL MULTIMETER
DISPLAY (TOP) P.C.B.
MAIN (BOTTOM) P.C.B.
+12V
RN-1
9MEG
900K
90K
9K
1K
C21 .022 1KV
S2B (REAR)
J2
J3
F1 3AG 2A
D11 3A
D12 3A
C20 470pF
S1B (REAR)
IC 5 3130
Q7
D10 IN4007
C19 100pF
R28 51
Q6
R25 0.9, 1/2% 1W
R26 9, 1% 1/2W
R27 90, 1/2% 1/2W
JUMPER
R24 .098, 1/2% 1/2W
R38 470K 1/2W MF
S2B (FRONT)
APPROX. +3V
D9 IN4148
Q8 2N5950
R37 4.7K
TO -3.6V
S1B (FRONT)
S2A (FRONT)
FUNCTION
S1A (REAR)
RANGE
LAST NUMBER
NOT USED
R39
R3
C21
C2, C18
D12
Q8



FOR INTERNAL DISTRIBUTION ONLY



1000, ACA

SHEET	OF		
496	124	9	006

ISSUE NO.	CHANGES	BY / CHKD
	RELEASE FOR INTERNAL DISTRIBUTION ONLY 3-11-77 D.J.M.	

RELEASED TO PROD. # 9340 6-3-77 DS

NOTES (UNLESS OTHERWISE SPECIFIED):

1. ALL RESISTORS ARE 1/4 W, 5%, DEPOSITED CARBON.
2. ALL CAPACITORS SHOWN IN MICROFARADS.
3. TITLES IN RECTANGLES DENOTE FRONT PANEL CONTROLS.
4. SW1 SHOWN IN 1000mA. POSITION.
5. SW2 SHOWN IN ACA POSITION.
6. DISPLAYS DS-1 THRU DS-4 MUST BE REPLACED WITH SAME TYPE AND GRADE.
7. BATTERIES MUST BE INSTALLED IN UNIT IN ALL MODES OF OPERATION.
8. SCHEMATIC SUBJECT TO CHANGE WITHOUT NOTICE.

⏚ = COMMON GROUND.

⏚ = LOGIC GROUND.

= PATH OF UNKNOWN CURRENT BEING MEASURED.

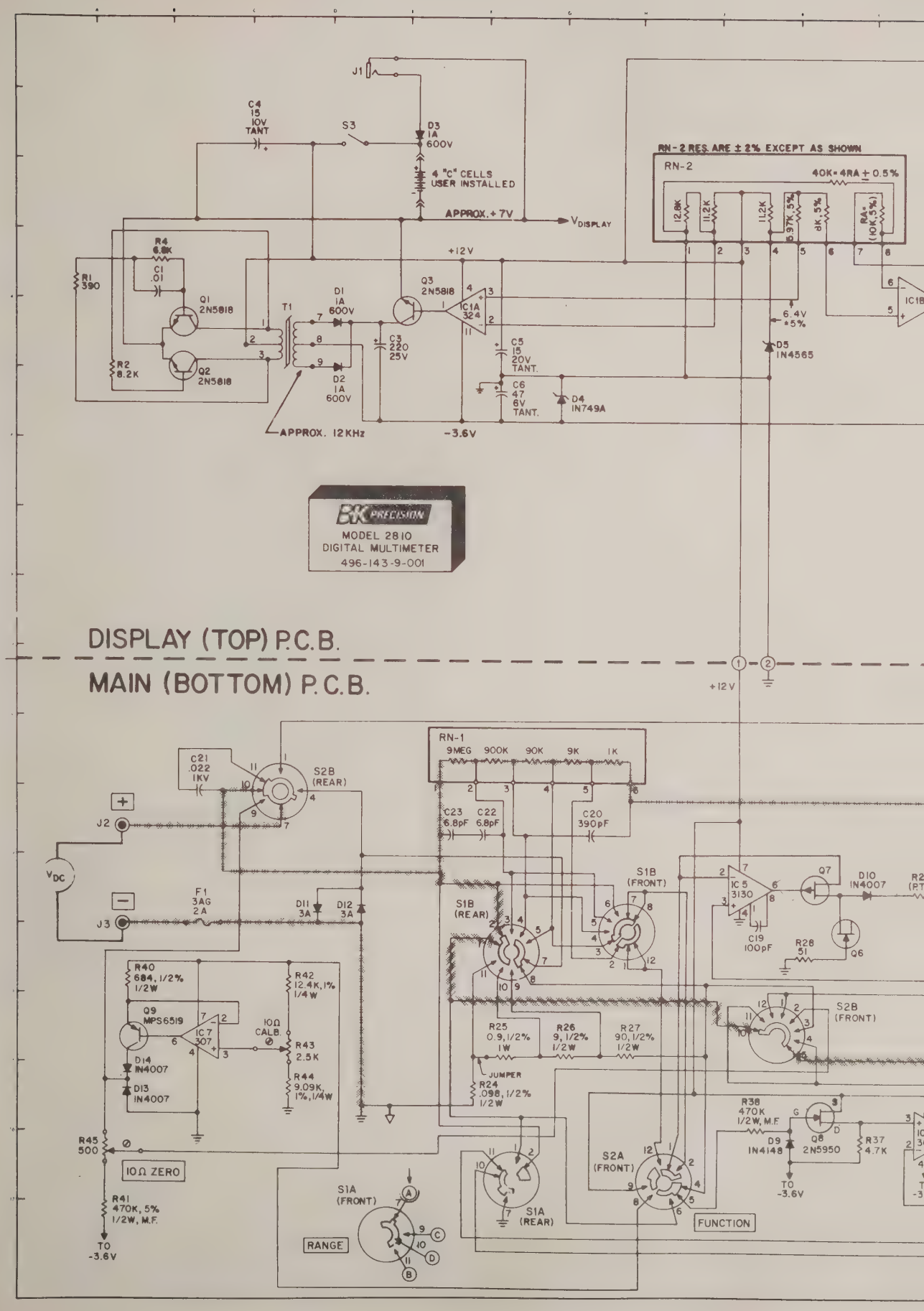
= SENSING PATH FROM CURRENT SHUNT TO AC-DC CONVERTER.

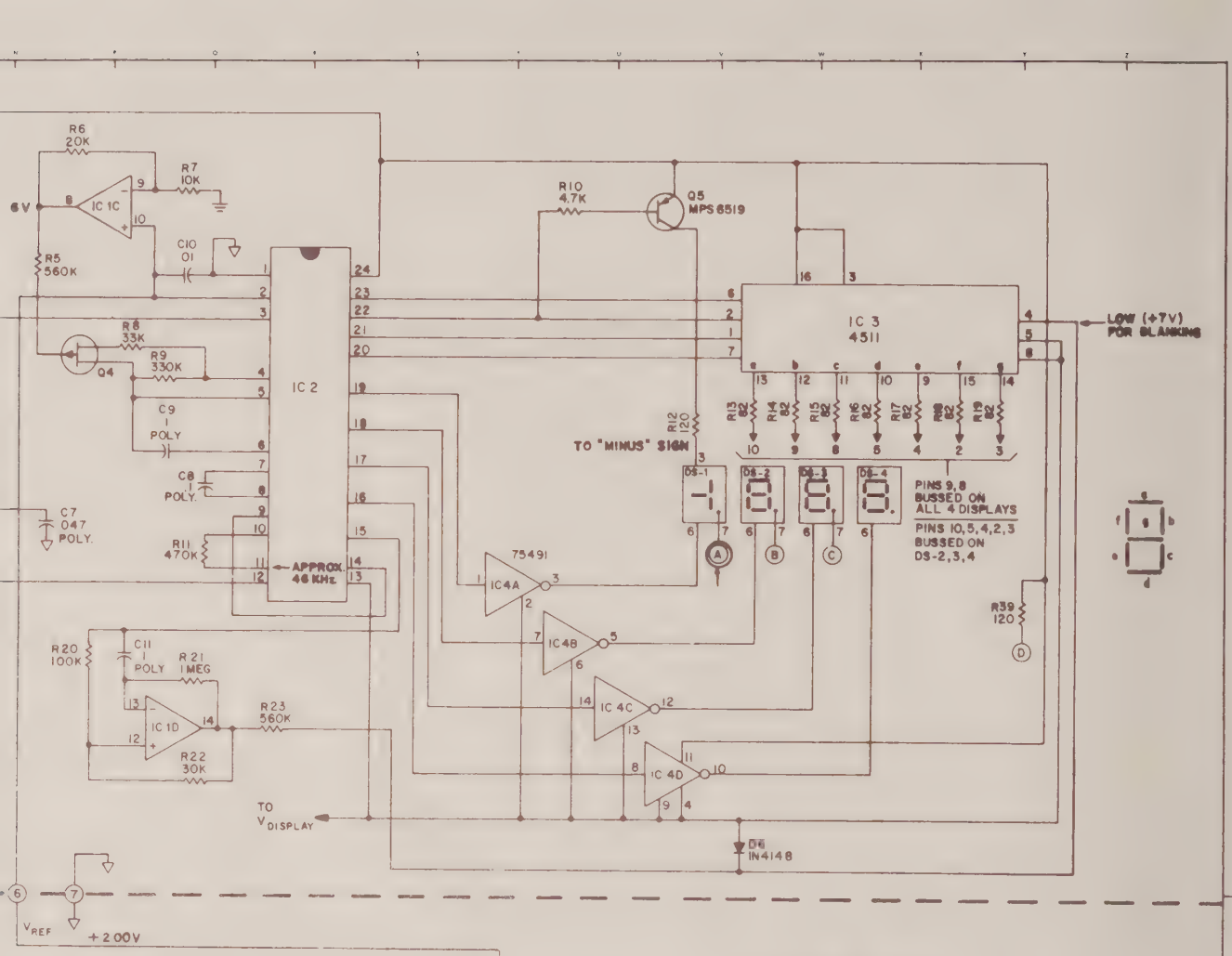
DYNASCAN CORPORATION
1801 W BELLE PLAINE CHICAGO ILLINOIS 60613

TITLE
#6 SCHEMATIC, 2800 DMM, ANALYZING

UNLESS OTHERWISE INDICATED	DRAWN BY	DATE	SCALE
1 ALL DIMENSIONS ARE IN INCHES 2 ALL BENDS ARE 90° 3 TOLERANCES FRACTIONS ± 1/64 DECIMAL ± .005 HOLES ± .003 ANGLES ± 0° 30'	[illegible]	1-17-77	APPROV
DO NOT SCALE DRAWING	APPROVED R.P.MUST	APPROVED M.JONES	1ST MODEL 8000

SHEET	OF		
496	124	9	006


J1
C4
15
10V
TANT
S3
D3
1A
600V
4 "C" CELLS
USER INSTALLED
APPROX. + 7V
$V_{DISPLAY}$
RN-2 RES. ARE ± 2% EXCEPT AS SHOWN
RN-2
40K = 4RA ± 0.5%
12.8K
11.2K
11.2K
5.97K, .5%
8K, .5%
RA=
(10K, 3%)
R4
6.8K
C1
.01
R1
390
Q1
2N5818
Q2
2N5818
R2
8.2K
T1
D1
1A
600V
D2
1A
600V
Q3
2N5818
IC1A
324
+12V
C3
220
25V
C5
15
20V
TANT.
C6
47
6V
TANT.
D4
IN749A
6.4V
±5%
D5
IN4565
IC1B
APPROX. 12KHz
-3.6V
B&K PRECISION
MODEL 2810
DIGITAL MULTIMETER
496-143-9-001
DISPLAY (TOP) P.C.B.
MAIN (BOTTOM) P.C.B.
+12V
RN-1
9MEG
900K
90K
9K
1K
C21
.022
1KV
S2B
(REAR)
J2
J3
V_{DC}
F1
3AG
2A
D11
3A
D12
3A
C23
6.8pF
C22
6.8pF
C20
390pF
S1B
(FRONT)
S1B
(REAR)
IC 5
3130
Q7
D10
IN4007
C19
100pF
R28
51
Q6
R40
684, 1/2%
1/2W
R42
12.4K, 1%
1/4W
Q9
MPS6519
IC 7
307
10Ω
CALB.
R43
2.5K
R44
9.09K,
1%, 1/4W
D14
IN4007
D13
IN4007
R25
0.9, 1/2%
1W
R26
9, 1/2%
1/2W
R27
90, 1/2%
1/2W
JUMPER
R24
.098, 1/2%
1/2W
S2B
(FRONT)
R38
470K
1/2W, M.F.
D9
IN4148
Q8
2N5950
R37
4.7K
TO
-3.6V
R45
500
10Ω ZERO
R41
470K, 5%
1/2W, M.F.
TO
-3.6V
S1A
(FRONT)
S1A
(REAR)
S2A
(FRONT)
RANGE
FUNCTION

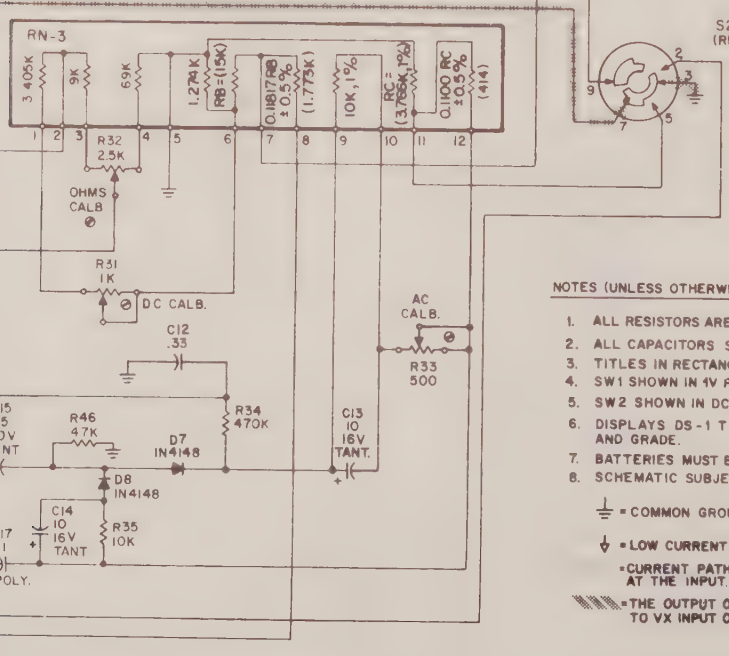


LAST NUMBER	NOT USED
R46	R3
C23	C2, C18
D14	
Q9	
IC7	

FOR INTERNAL DISTRIBUTION ONLY

I, DCV

RN-3 RES. ARE ±2% EXCEPT AS SHOWN



NOTES (UNLESS OTHERWISE SPECIFIED):

1. ALL RESISTORS ARE 1/4 W, 5%, DEPOSITED CARBON.
2. ALL CAPACITORS SHOWN IN MICROFARADS.
3. TITLES IN RECTANGLES DENOTE FRONT PANEL CONTROLS.
4. SW1 SHOWN IN 4V POSITION.
5. SW2 SHOWN IN DCV POSITION.
6. DISPLAYS DS-1 THRU DS-4 MUST BE REPLACED WITH SAME TYPE AND GRADE.
7. BATTERIES MUST BE INSTALLED IN UNIT IN ALL MODES OF OPERATION.
8. SCHEMATIC SUBJECT TO CHANGE WITHOUT NOTICE.

⏚ = COMMON GROUND.

⏚ = LOW CURRENT GROUND

*CURRENT PATH OF VOLTAGE APPEARING AT THE INPUT.

▨ = THE OUTPUT OF THE INPUT DIVIDER CIRCUIT TO VX INPUT OF IC2, PIN 3.

SHEET	OF		
496	143	9	001

REVISIONS	CHANGES	BY CHKD
	RELEASE FOR INTERNAL DISTRIBUTION ONLY 7-1-77 D.J.H.	
	Rel to Production O/N 4440 10/26/77 #3.	

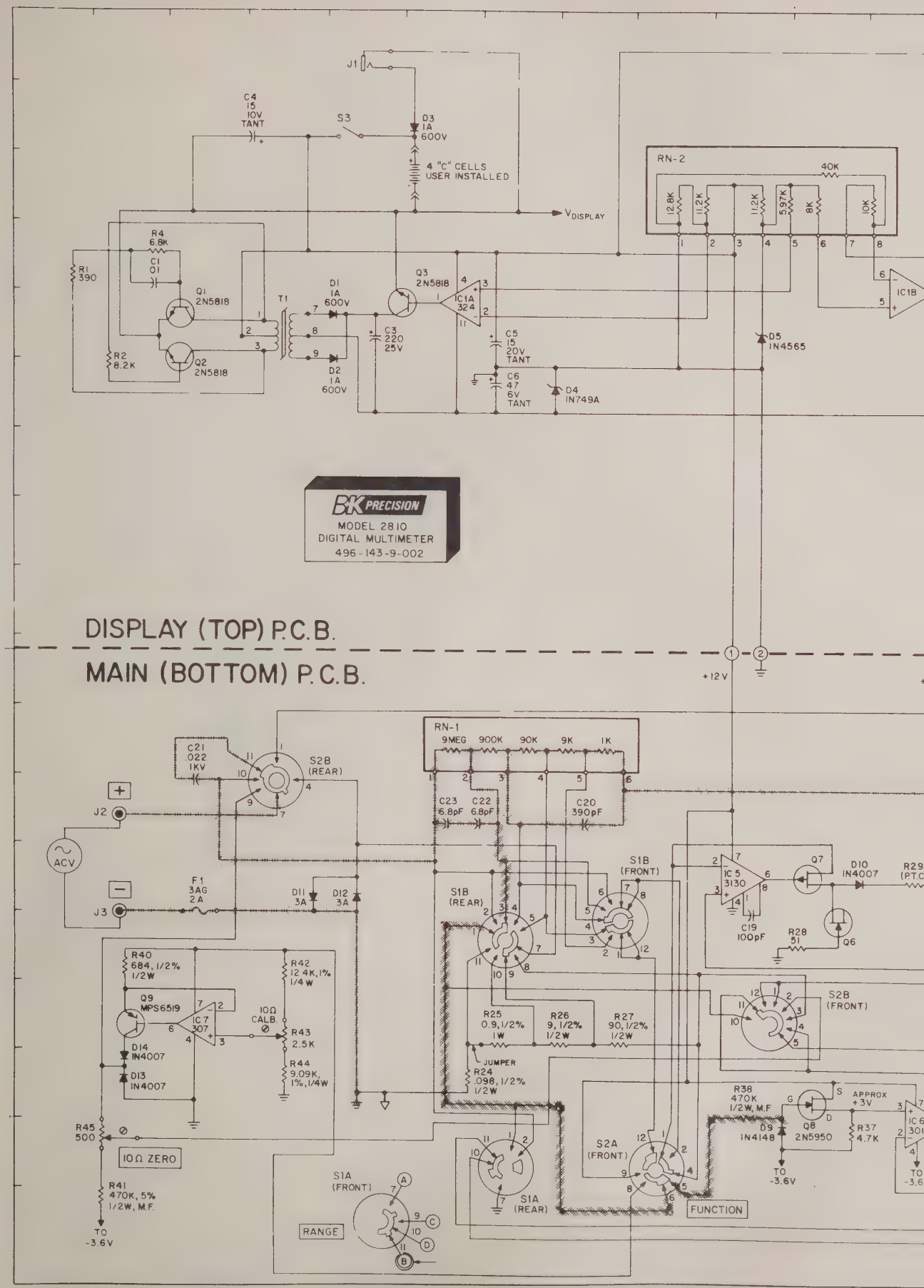
DYNASCAN CORPORATION
1801 W. BELLE PLAINE CHICAGO ILLINOIS 60613

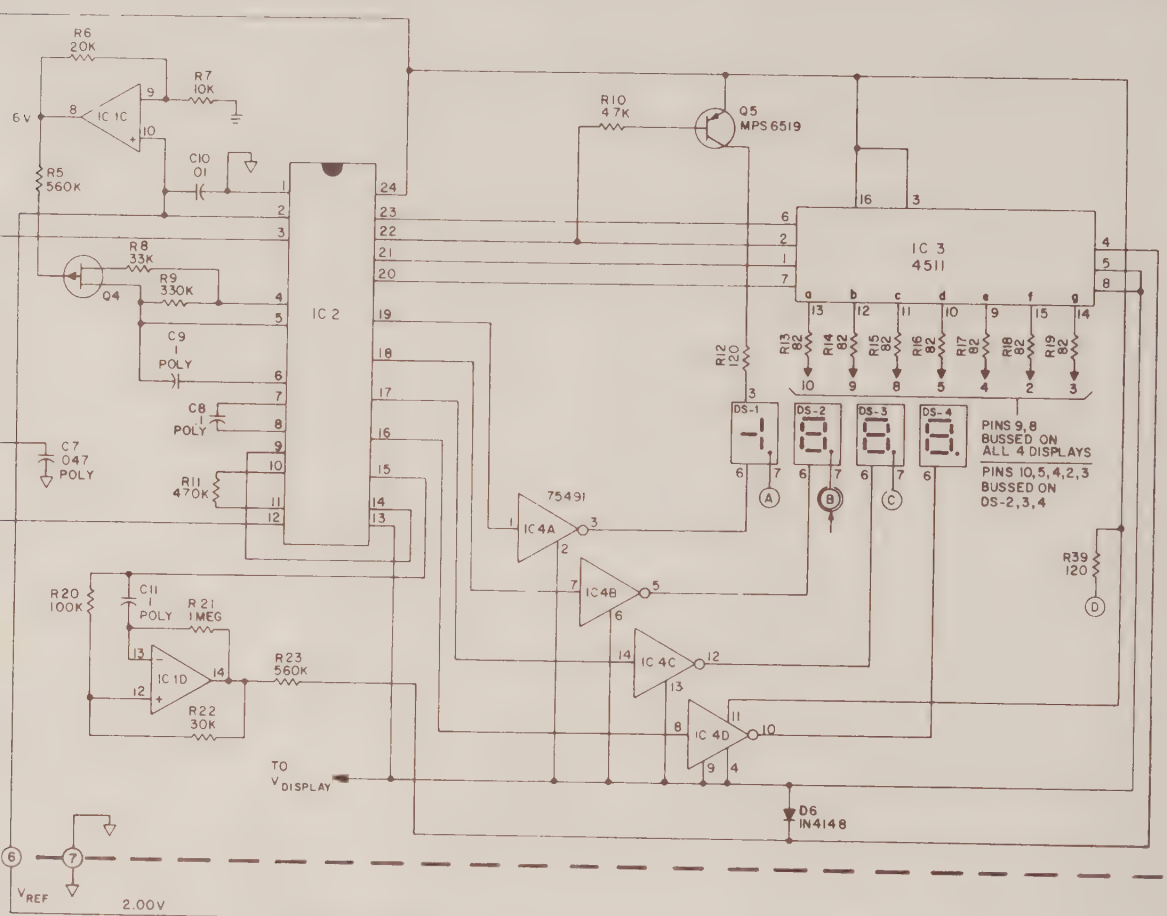
TITLE
1 SCHEMATIC, 2810 DMM, ANALYZING

UNLESS OTHERWISE INDICATED
1. ALL DIMENSIONS ARE IN INCHES
2. ALL BENDS ARE 90°
3. TOLERANCES
FRACTIONS ± 1/64
DECIMAL ± .005
HOLES ± .003
ANGLES ± 0° 10'
DO NOT SCALE DRAWING

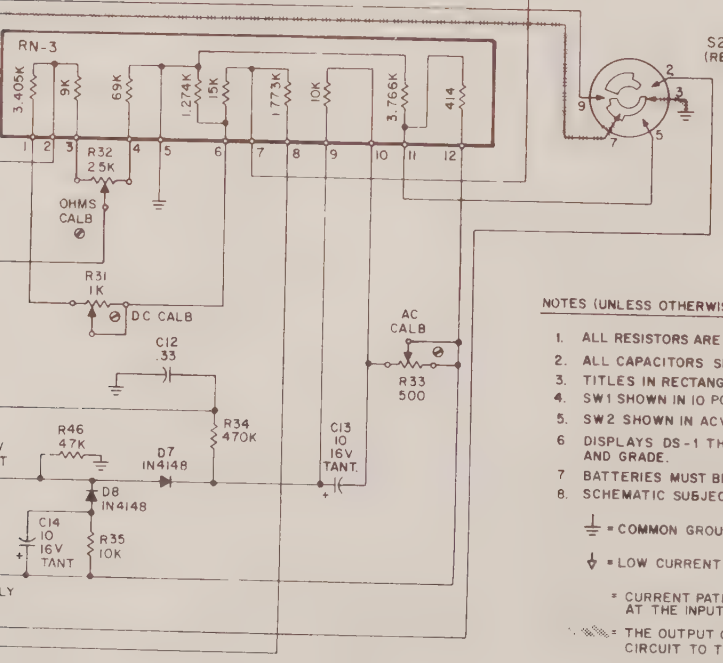
DRAWN BY: RF 8/26/77
APPROVED: R. FAUST
APPROVED: H. JONES
SCALE: NONE
1ST MODEL: 2810
SHEET | OF | 1

496	143	9	001


J1
C4 15 10V TANT
S3
D3 1A 600V
4 "C" CELLS USER INSTALLED
V DISPLAY
RN-2
40K
12.8K
11.2K
11.2K
5.97K
8K
10K
R4 6.8K
C1 01
R1 390
Q1 2N5818
Q2 2N5818
R2 8.2K
T1
D1 1A 600V
D2 1A 600V
C3 220 25V
Q3 2N5818
IC1A 324
IC1B
C5 15 20V TANT
C6 47 6V TANT
D4 IN749A
D5 IN4565
BK PRECISION
MODEL 2810
DIGITAL MULTIMETER
496-143-9-002
DISPLAY (TOP) P.C.B.
MAIN (BOTTOM) P.C.B.
+12 V
RN-1
9MEG 900K 90K 9K 1K
C21 .022 1KV
S2B (REAR)
J2
ACV
J3
F1 3AG 2A
D11 3A
D12 3A
C23 6.8pF
C22 6.8pF
C20 390pF
S1B (FRONT)
S1B (REAR)
IC 5 3130
Q7
D10 IN4007
C19 100pF
R28 51
Q6
R40 684, 1/2% 1/2W
R42 12.4K, 1% 1/4W
Q9 MPS6519
IC 7 307
10Ω CALB.
R43 2.5K
D14 IN4007
D13 IN4007
R44 9.09K, 1%, 1/4W
R25 0.9, 1/2% 1W
R26 9, 1/2% 1/2W
R27 90, 1/2% 1/2W
JUMPER
R24 .098, 1/2% 1/2W
S2B (FRONT)
R38 470K 1/2W, M.F
APPROX +3V
D9 IN4148
Q8 2N5950
R37 4.7K
TO -3.6V
R45 500
10Ω ZERO
R41 470K, 5% 1/2W, M.F.
TO -3.6V
S2A (FRONT)
S1A (FRONT)
S1A (REAR)
RANGE
FUNCTION



LAST NUMBER	NOT USED
R46	R3
C23	C2, C18
D14	
Q9	
IC7	



FOR INTERNAL DISTRIBUTION ONLY

10, ACV

NOTES (UNLESS OTHERWISE SPECIFIED):

1. ALL RESISTORS ARE 1/4 W, 5%, DEPOSITED CARBON.
2. ALL CAPACITORS SHOWN IN MICROFARADS.
3. TITLES IN RECTANGLES DENOTE FRONT PANEL CONTROLS.
4. SW1 SHOWN IN 10 POSITION.
5. SW2 SHOWN IN ACV POSITION.
6. DISPLAYS DS-1 THRU DS-4 MUST BE REPLACED WITH SAME TYPE AND GRADE.
7. BATTERIES MUST BE INSTALLED IN UNIT IN ALL MODES OF OPERATION.
8. SCHEMATIC SUBJECT TO CHANGE WITHOUT NOTICE.

⏚ = COMMON GROUND.

⏚ = LOW CURRENT GROUND.

= CURRENT PATH OF VOLTAGE APPEARING AT THE INPUT

= THE OUTPUT OF THE INPUT DIVIDER CIRCUIT TO THE AC-DC CONVERTER.

SHEET	OF		
496	143	9	002

RELEASE FOR INTERNAL DISTRIBUTION ONLY 7-1-77 D J H

Rel to Production (W) KMO 10/26/77 J.J.

DYNASCAN CORPORATION
1801 W. BELLE PLAINE CHICAGO ILLINOIS 60613

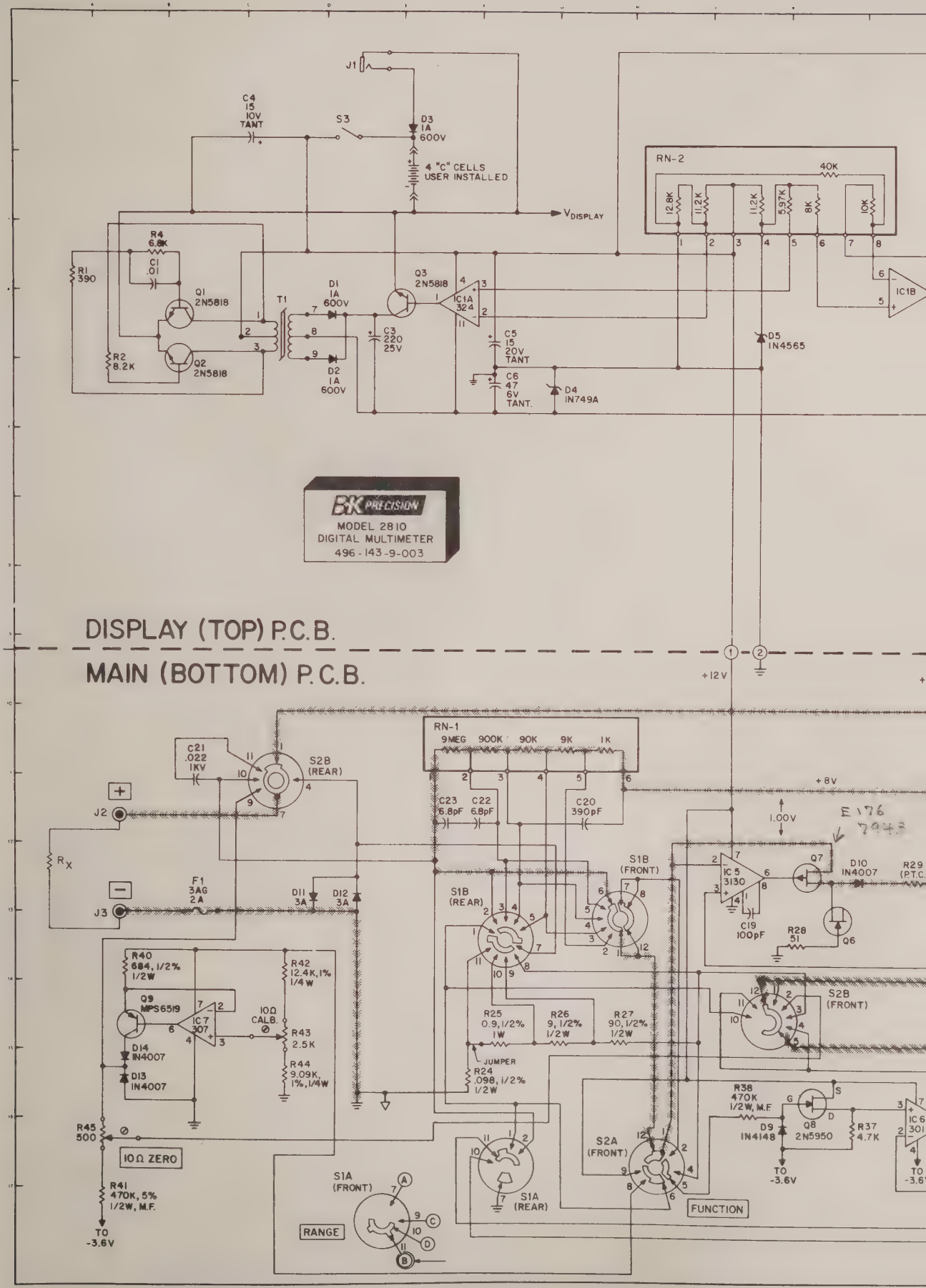
TITLE: #2 SCHEMATIC, 2810 DMM, ANALYZING

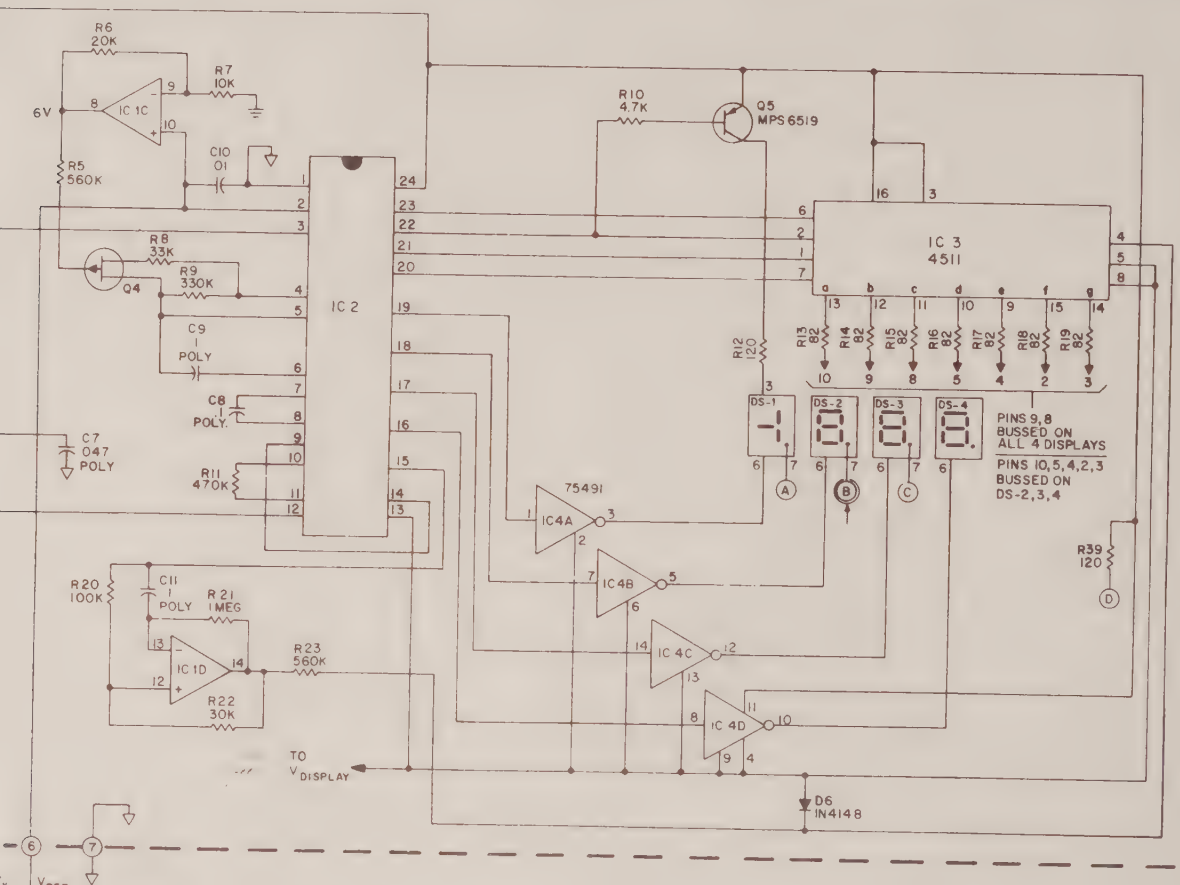
UNLESS OTHERWISE INDICATED
1. ALL DIMENSIONS ARE IN INCHES
2. ALL REMOVE ARE 90
3. TOLERANCES
FRACTIONS ± 1/64
DECIMAL .X ± .005
.XX ± .010
HOLES ± .003
ANGLES ± 0° 10'
DO NOT SCALE DRAWING

DRAWN BY	DATE	SCALE
D. HAMILTON	6-21-77	NONE
APPROVED	APPROVED	1ST MODEL
[illegible]	[illegible]	2810

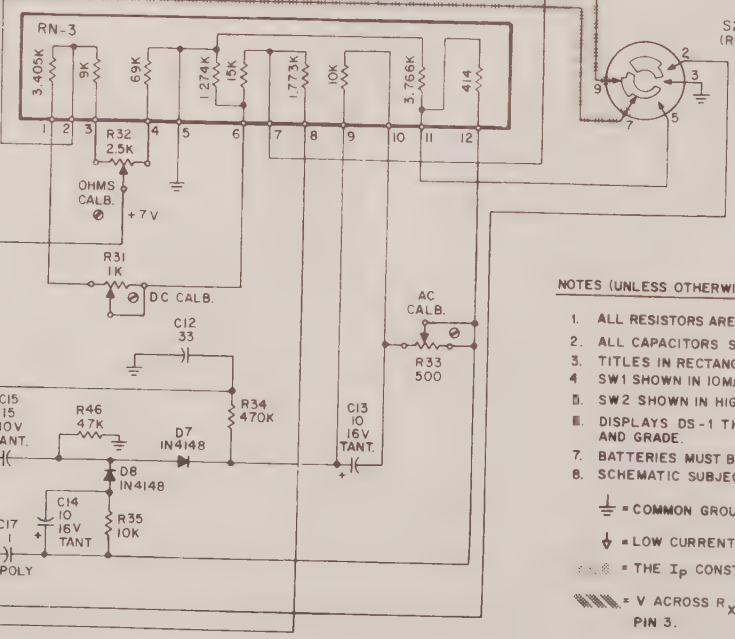
SHEET | OF | 1

496	143	9	002


J1
C4
15
10V
TANT
S3
D3
1A
600V
4 "C" CELLS
USER INSTALLED
VDISPLAY
RN-2
40K
12.8K
11.2K
11.2K
5.97K
8K
10K
R4
6.8K
C1
.01
R1
390
Q1
2N5818
Q2
2N5818
R2
8.2K
T1
D1
1A
600V
D2
1A
600V
Q3
2N5818
IC1A
324
IC1B
C3
220
25V
C5
15
20V
TANT
C6
47
6V
TANT.
D4
IN749A
D5
IN4565
BK PRECISION
MODEL 2810
DIGITAL MULTIMETER
496-143-9-003
DISPLAY (TOP) P.C.B.
MAIN (BOTTOM) P.C.B.
+12V
RN-1
9MEG
900K
90K
9K
1K
C21
.022
1KV
S2B
(REAR)
J2
J3
RX
F1
3AG
2A
D11
3A
D12
3A
C23
6.8pF
C22
6.8pF
C20
390pF
+8V
1.00V
E176
7042
S1B
(FRONT)
S1B
(REAR)
IC 5
3130
Q7
D10
IN4007
R29
(P.T.C.
C19
100pF
R28
51
Q6
S2B
(FRONT)
R40
684, 1/2%
1/2W
Q9
MPS6519
IC 7
307
10Ω
CALB.
R42
12.4K, 1%
1/4W
R43
2.5K
R44
9.09K,
1%, 1/4W
D14
IN4007
D13
IN4007
R25
0.9, 1/2%
1W
R26
9, 1/2%
1/2W
R27
90, 1/2%
1/2W
JUMPER
R24
.098, 1/2%
1/2W
R45
500
10Ω ZERO
R41
470K, 5%
1/2W, M.F.
TO
-3.6V
S1A
(FRONT)
S1A
(REAR)
RANGE
S2A
(FRONT)
FUNCTION
R38
470K
1/2W, M.F
D9
IN4148
Q8
2N5950
R37
4.7K
IC 6
301
TO
-3.6V



LAST NUMBER	NOT USED
R46	R3
C23	C2, C18
D14	
Q9	
IC7	



FOR INTERNAL DISTRIBUTION ONLY

10 MΩ, HIGH OHMS

NOTES (UNLESS OTHERWISE SPECIFIED):

1. ALL RESISTORS ARE 1/4 W, 5%, DEPOSITED CARBON.
2. ALL CAPACITORS SHOWN IN MICROFARADS.
3. TITLES IN RECTANGLES DENOTE FRONT PANEL CONTROLS.
4. SW1 SHOWN IN 10MΩ POSITION.
5. SW2 SHOWN IN HIGH OHMS POSITION
6. DISPLAYS DS-1 THRU DS-4 MUST BE REPLACED WITH SAME TYPE AND GRADE.
7. BATTERIES MUST BE INSTALLED IN UNIT IN ALL MODES OF OPERATION.
8. SCHEMATIC SUBJECT TO CHANGE WITHOUT NOTICE.

⏚ = COMMON GROUND.

⏚ = LOW CURRENT GROUND.

▒▒ = THE I_p CONSTANT CURRENT SOURCE PATH.

▨ = V ACROSS R_X TO V_X INPUT OF IC 2, PIN 3.

SHEET	OF		
496	143	9	003

RELEASE FOR INTERNAL DISTRIBUTION ON: 7-1-77 D.J.H.

Rel. to Production C/N 4440 10/24/77

DYNASCAN CORPORATION
1801 W. BELLE PLAINE CHICAGO ILLINOIS 60613

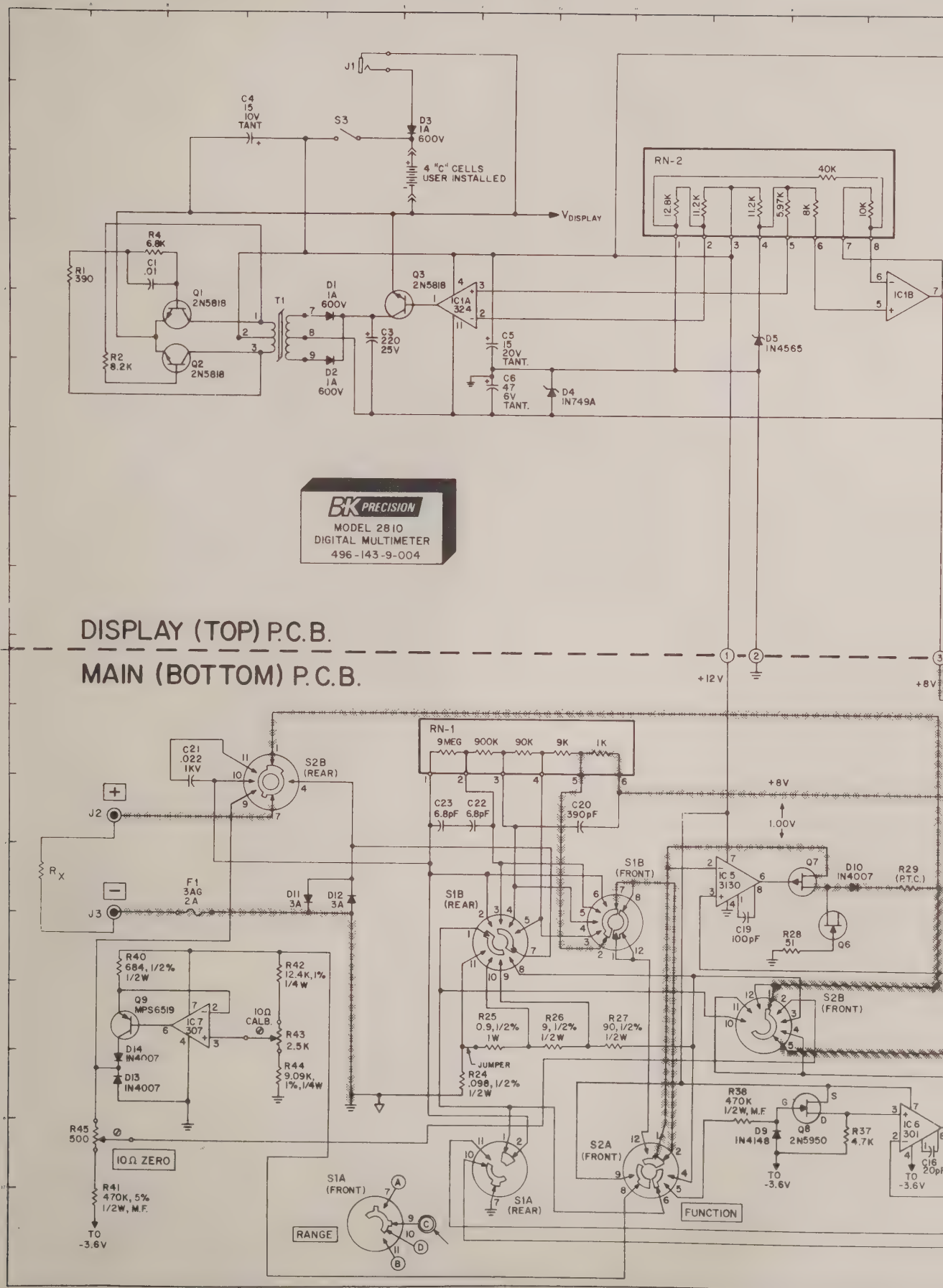
TITLE: #3 SCHEMATIC, 2810 DMM, ANALYZING

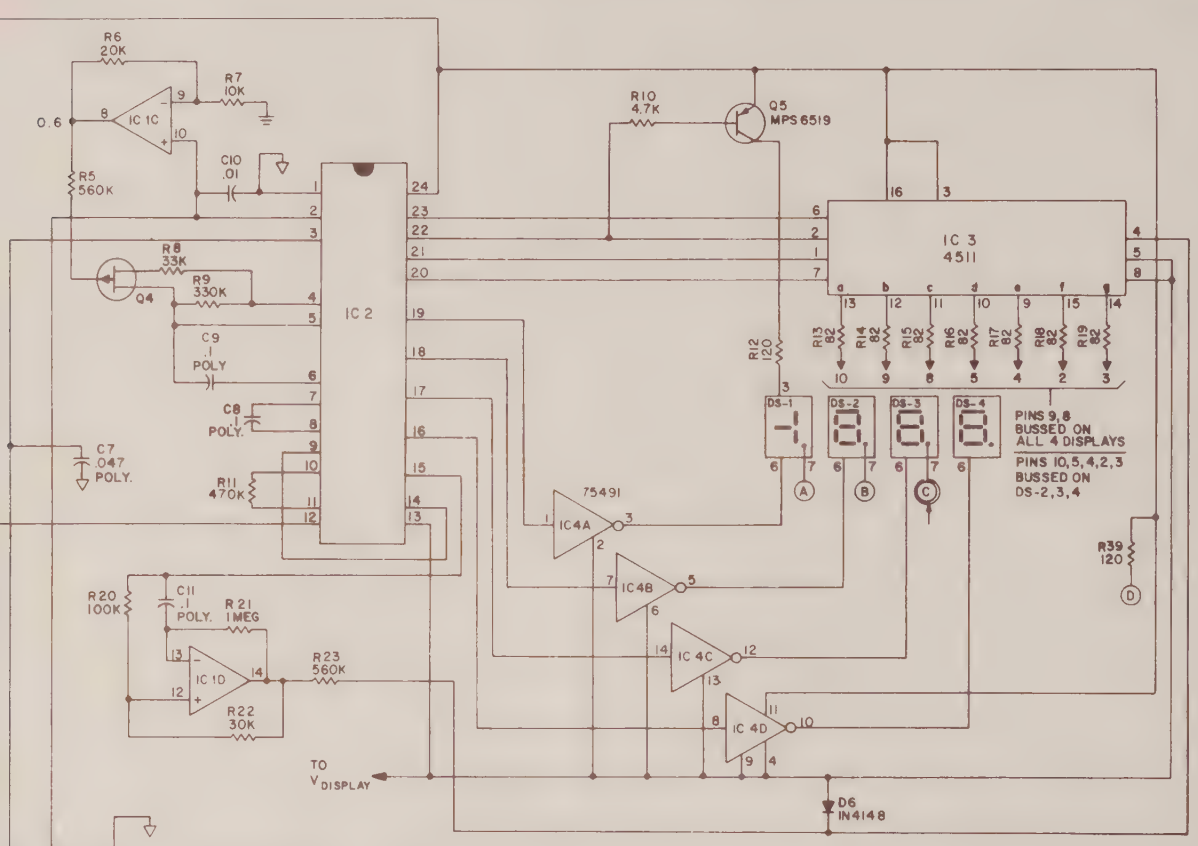
UNLESS OTHERWISE INDICATED
1. ALL DIMENSIONS ARE IN INCHES
2. ALL BENDS ARE 90°
3. TOLERANCES
FRACTIONS ±
DECIMAL .X ±
.XX ±
ANGLES ±

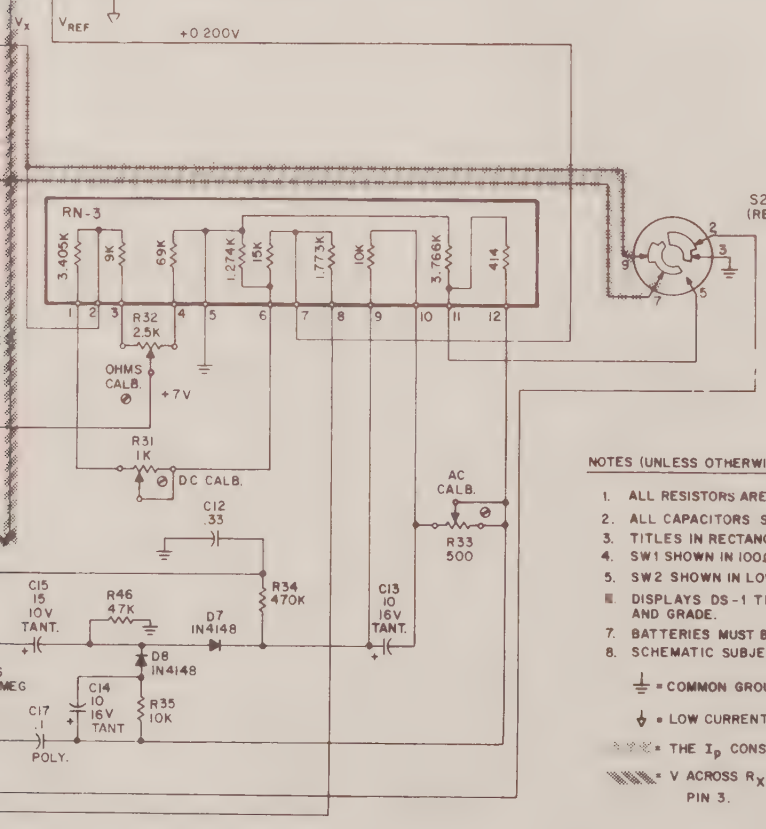
DO NOT SCALE DRAWING

DRAWN BY	DATE	SCALE
D. HARTLEY	6-21-77	NONE
APPROVED	APPROVED	1ST MODEL 2810

SHEET	OF		
496	143	9	003


J1
C4 15 10V TANT
S3
D3 1A 600V
4 "C" CELLS USER INSTALLED
VDISPLAY
RN-2
40K
12.8K
11.2K
11.2K
5.97K
8K
10K
R4 6.8K
C1 .01
R1 390
Q1 2N5818
Q2 2N5818
R2 8.2K
T1
D1 1A 600V
D2 1A 600V
Q3 2N5818
IC1A 324
IC1B
C3 220 25V
C5 15 20V TANT.
C6 47 6V TANT.
D4 IN749A
D5 IN4565
B&K PRECISION
MODEL 2810
DIGITAL MULTIMETER
496-143-9-004
DISPLAY (TOP) P.C.B.
MAIN (BOTTOM) P.C.B.
+12V
+8V
RN-1
9MEG
900K
90K
9K
1K
C21 .022 1KV
S2B (REAR)
J2
J3
RX
F1 3AG 2A
D11 3A
D12 3A
C23 6.8pF
C22 6.8pF
C20 390pF
S1B (REAR)
S1B (FRONT)
IC 5 3130
Q7
D10 IN4007
R29 (P.T.C.)
C19 100pF
R28 51
Q6
1.00V
S2B (FRONT)
R40 684, 1/2% 1/2W
Q9 MPS6519
IC 7 307
10Ω CALB.
R42 12.4K, 1% 1/4W
R43 2.5K
R44 9.09K, 1%, 1/4W
D14 IN4007
D13 IN4007
R25 0.9, 1/2% 1W
R26 9, 1/2% 1/2W
R27 90, 1/2% 1/2W
JUMPER
R24 .098, 1/2% 1/2W
R38 470K 1/2W, M.F
D9 IN4148
Q8 2N5950
R37 4.7K
IC 6 301
C16 20pF
TO -3.6V
R45 500
10Ω ZERO
R41 470K, 5% 1/2W, M.F.
TO -3.6V
S2A (FRONT)
S1A (FRONT)
S1A (REAR)
RANGE
FUNCTION





LAST NUMBER	NOT USED
R46	R3
C23	C2, C18
D14	
Q9	
IC7	

FOR INTERNAL DISTRIBUTION ONLY

100Ω, LOW OHMS

NOTES (UNLESS OTHERWISE SPECIFIED):

1. ALL RESISTORS ARE 1/4 W, 5%, DEPOSITED CARBON.
2. ALL CAPACITORS SHOWN IN MICROFARADS.
3. TITLES IN RECTANGLES DENOTE FRONT PANEL CONTROLS.
4. SW1 SHOWN IN 100Ω POSITION.
5. SW2 SHOWN IN LOW OHMS POSITION.
6. DISPLAYS DS-1 THRU DS-4 MUST BE REPLACED WITH SAME TYPE AND GRADE.
7. BATTERIES MUST BE INSTALLED IN UNIT IN ALL MODES OF OPERATION.
8. SCHEMATIC SUBJECT TO CHANGE WITHOUT NOTICE.

⏚ = COMMON GROUND.

⏚ = LOW CURRENT GROUND.

▨ = THE I_p CONSTANT CURRENT SOURCE PATH.

▨ = V ACROSS R_X TO V_X INPUT OF IC 2, PIN 3.

SHEET	OF		
496	143	9	004

ISSUE NUMBER	CHANGES	BY CHKD
1	RELEASE FOR INTERNAL DISTRIBUTION ONLY 7-1-77 D.J.H.	

Released to Prod. C/N 4440 10/26/77 SG

DYNASCAN CORPORATION
1801 W. BELLE PLAINE CHICAGO ILLINOIS 60613

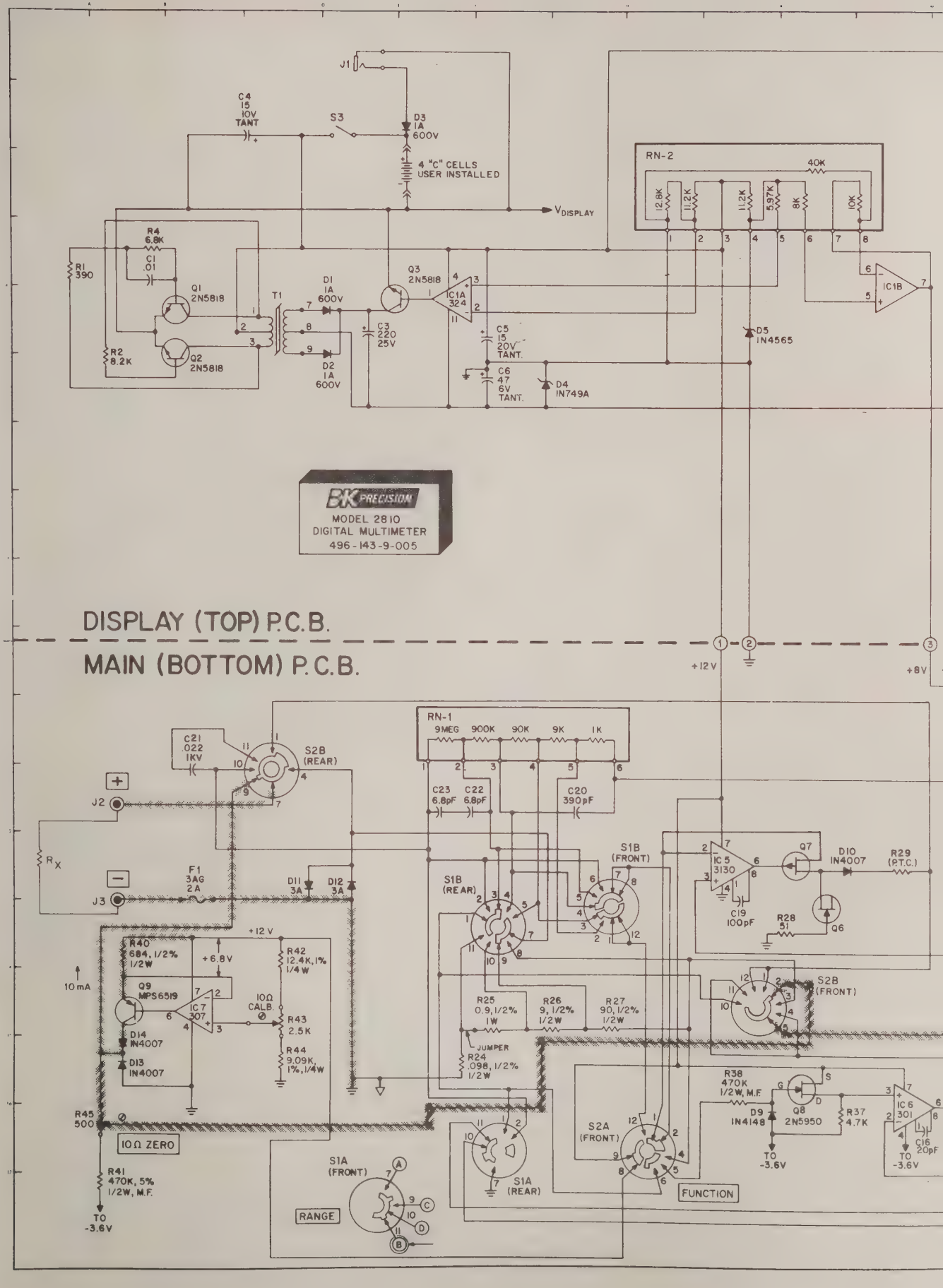
TITLE
#4 SCHEMATIC, 2810 DMM, ANALYZING

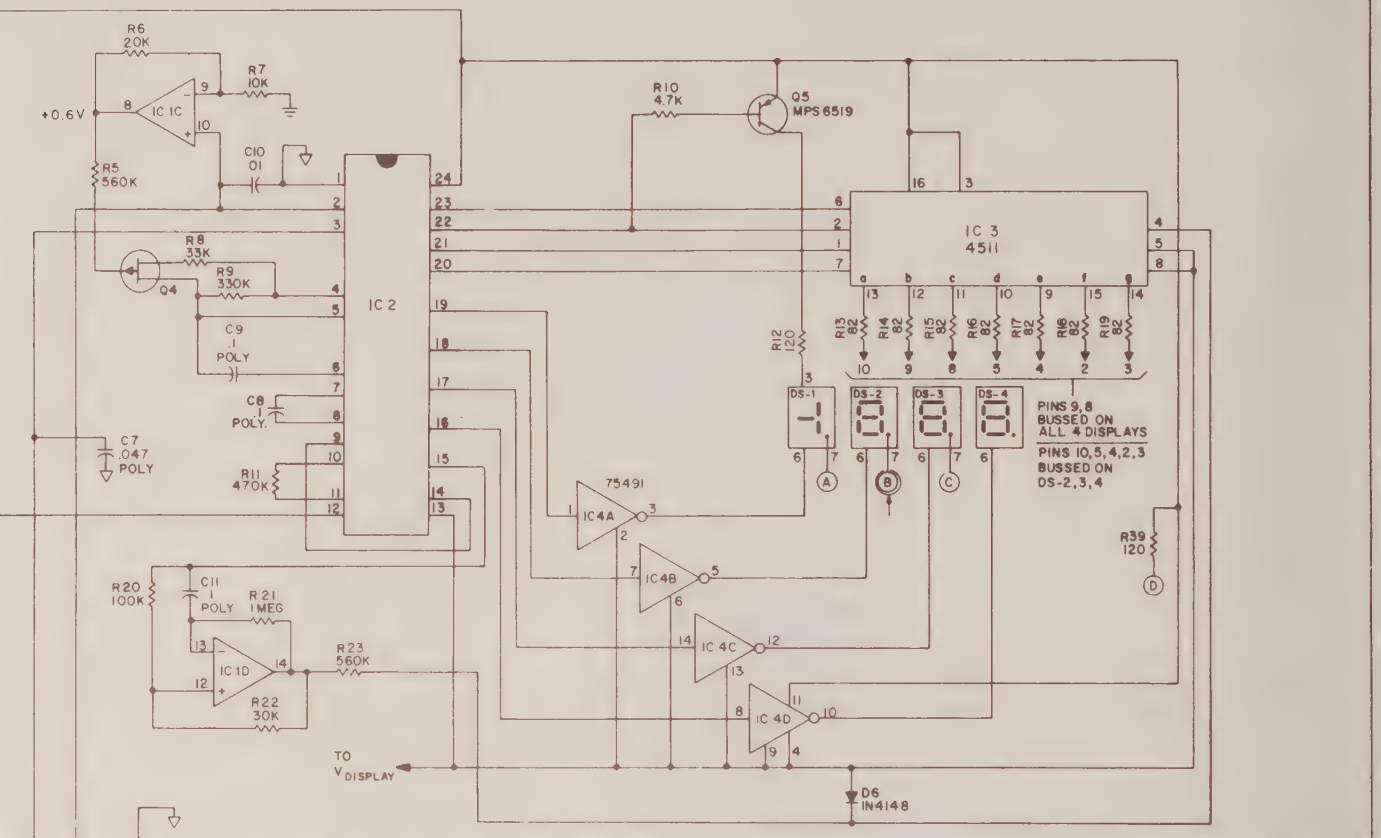
UNLESS OTHERWISE INDICATED
1 ALL DIMENSIONS ARE IN INCHES
2 ALL BENDS ARE 90°
3 TOLERANCES
FRACTIONS ± 1/64
DECIMAL ± .005
HOLES ± .003
ANGLES ± 0° 30'
DO NOT SCALE DRAWING

DRAWN BY	DATE	SCALE
B. [illegible]	6-21-77	NONE
APPROVED R. FAUST	APPROVED H. JONES	1ST MODEL 2810

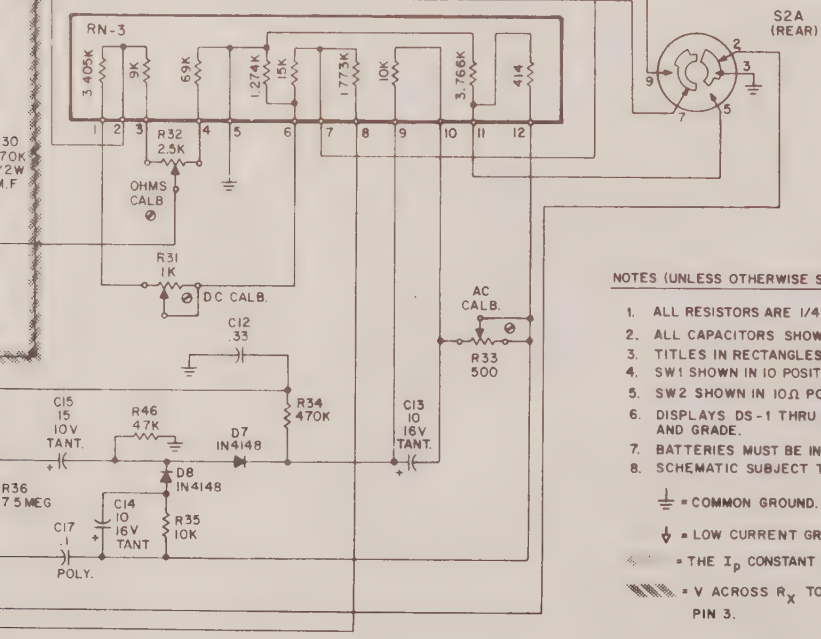
SHEET | OF |

496	143	9	004


J1
C4 15 10V TANT
S3
D3 1A 600V
4 "C" CELLS USER INSTALLED
V DISPLAY
RN-2
40K
12.8K
11.2K
11.2K
5.97K
8K
10K
R4 6.8K
C1 .01
R1 390
Q1 2N5818
Q2 2N5818
T1
D1 1A 600V
D2 1A 600V
Q3 2N5818
IC1A 324
C3 220 25V
C5 15 20V TANT.
C6 47 6V TANT.
D4 IN749A
D5 IN4565
IC1B
R2 8.2K
MODEL 2810
DIGITAL MULTIMETER
496-143-9-005
DISPLAY (TOP) P.C.B.
MAIN (BOTTOM) P.C.B.
+12V
+8V
RN-1
9MEG
900K
90K
9K
1K
C21 .022 1KV
S2B (REAR)
J2
J3
Rx
F1 3AG 2A
D11 3A
D12 3A
C23 6.8pF
C22 6.8pF
C20 390pF
S1B (FRONT)
S1B (REAR)
IC 5 3130
C19 100pF
Q7
D10 IN4007
R29 (P.T.C.)
R28 51
Q6
S2B (FRONT)
+12V
R40 684, 1/2% 1/2W
+6.8V
R42 12.4K, 1% 1/4W
10 mA
Q9 MPS6519
IC 7 307
10Ω CALB
R43 2.5K
R44 9.09K, 1%, 1/4W
D14 IN4007
D13 IN4007
R25 0.9, 1/2% 1W
R26 9, 1/2% 1/2W
R27 90, 1/2% 1/2W
JUMPER
R24 .098, 1/2% 1/2W
R45 500
10Ω ZERO
R41 470K, 5% 1/2W, M.F.
TO -3.6V
S1A (FRONT)
S1A (REAR)
RANGE
S2A (FRONT)
FUNCTION
R38 470K 1/2W, M.F.
Q8 2N5950
D9 IN4148
R37 4.7K
IC 6 301
C16 20pF
TO -3.6V



LAST NUMBER	NOT USED
R46	R3
C23	C2, C18
D14	
Q9	
IC7	



FOR INTERNAL DISTRIBUTION ONLY

10, 10 Ω

NOTES (UNLESS OTHERWISE SPECIFIED):

1. ALL RESISTORS ARE 1/4 W, 5%, DEPOSITED CARBON
2. ALL CAPACITORS SHOWN IN MICROFARADS.
3. TITLES IN RECTANGLES DENOTE FRONT PANEL CONTROLS.
4. SW1 SHOWN IN 10 POSITION
5. SW2 SHOWN IN 10Ω POSITION.
6. DISPLAYS DS-1 THRU DS-4 MUST BE REPLACED WITH SAME TYPE AND GRADE.
7. BATTERIES MUST BE INSTALLED IN UNIT IN ALL MODES OF OPERATION.
8. SCHEMATIC SUBJECT TO CHANGE WITHOUT NOTICE.

⏚ = COMMON GROUND.

⏚ = LOW CURRENT GROUND.

= THE I_p CONSTANT CURRENT SOURCE PATH.

= V ACROSS R_X TO V_X INPUT OF IC 2, PIN 3.

SHEET	OF		
496	143	9	005

SYM	CHANGES	BY CHKD
A	RELEASE FOR INTERNAL DISTRIBUTION ONLY 7-1-77 D.J.H.	
	RELEASE TO PRODUCTION S.G. 10-26-77 CN#4440	

DYNASCAN CORPORATION
1801 W. BELLE PLAINE CHICAGO ILLINOIS 60613

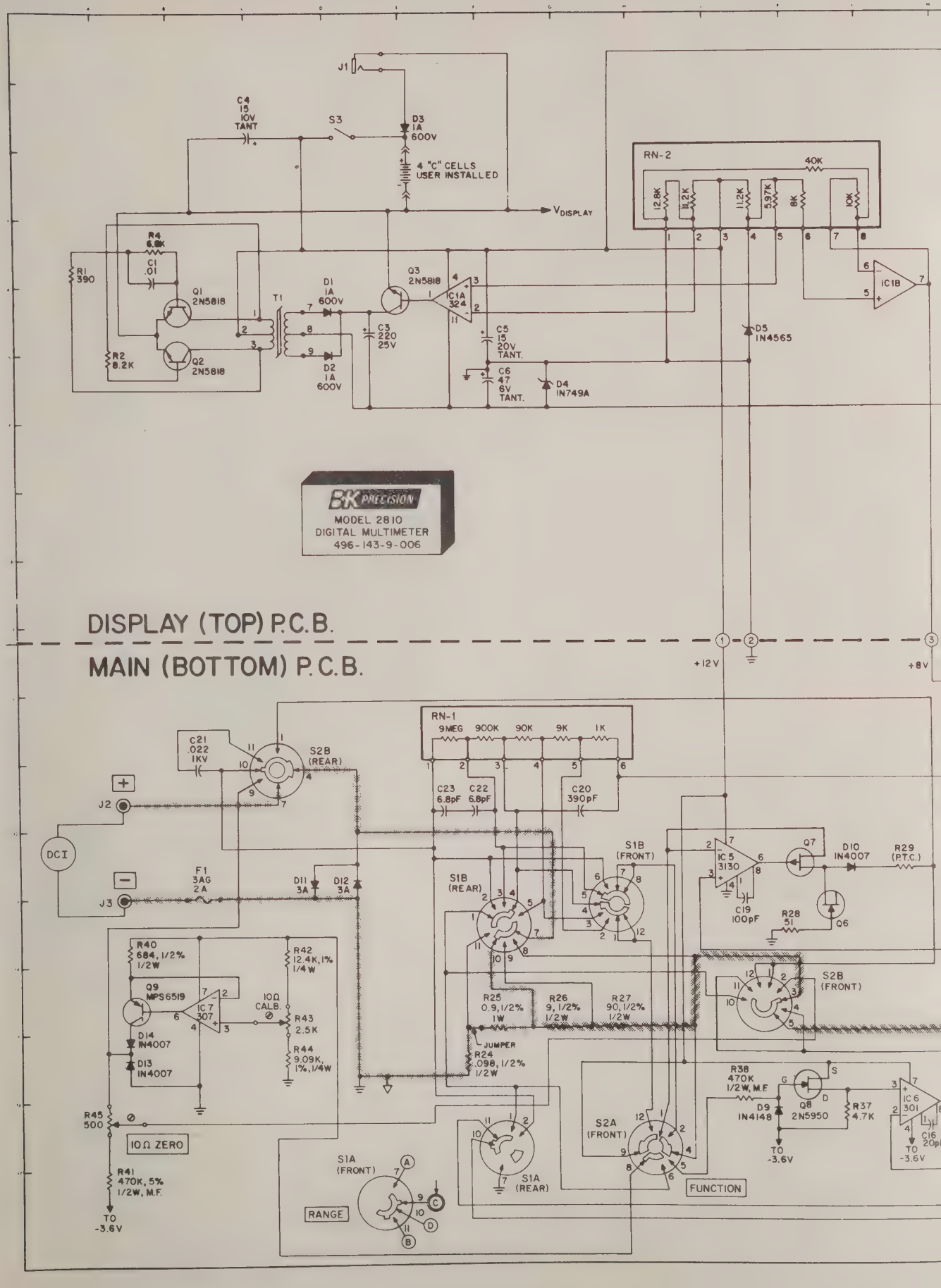
TITLE
#5 SCHEMATIC, 2810 DMM, ANALYZING

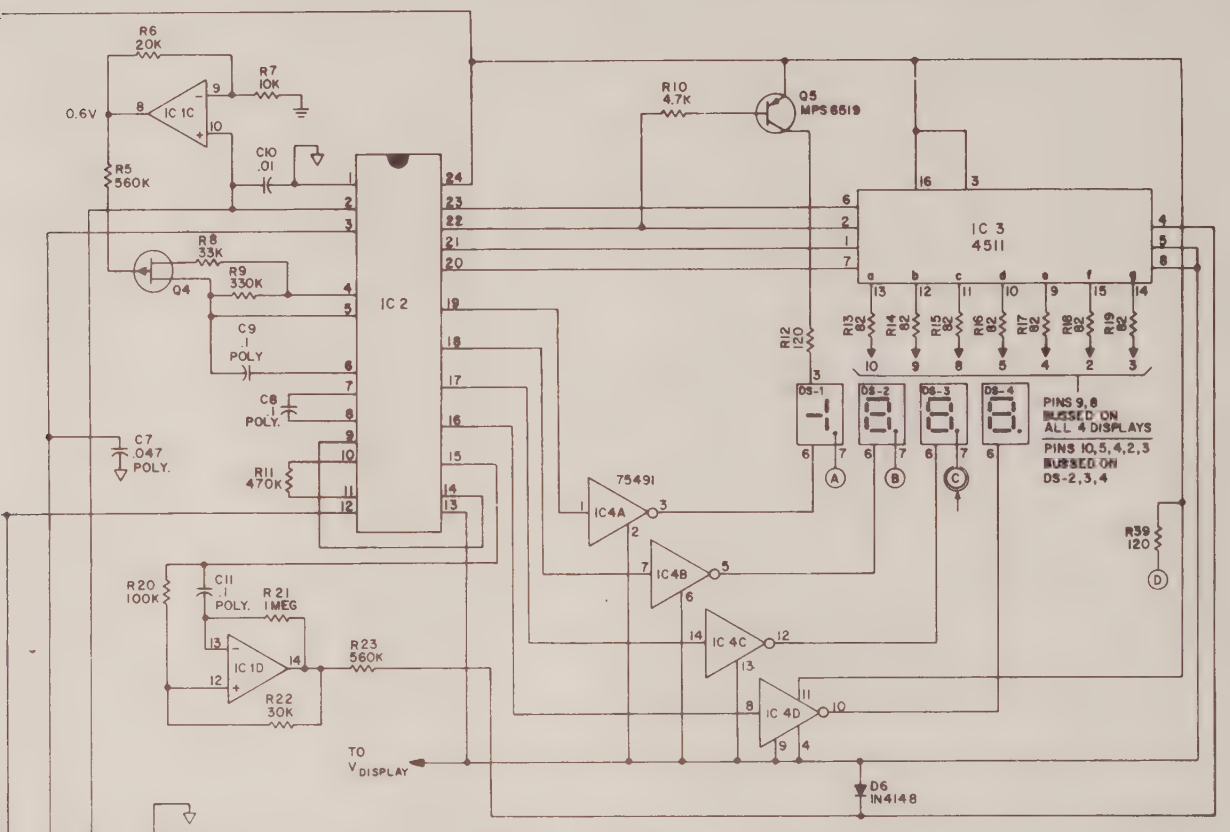
UNLESS OTHERWISE INDICATED
1. ALL DIMENSIONS ARE IN INCHES
2. ALL BENDS ARE 90°
3. TOLERANCES
FRACTIONS ± 1/64
DECIMAL ± .005
HOLES ± .003
ANGLES ± 0° 30'
DO NOT SCALE DRAWING

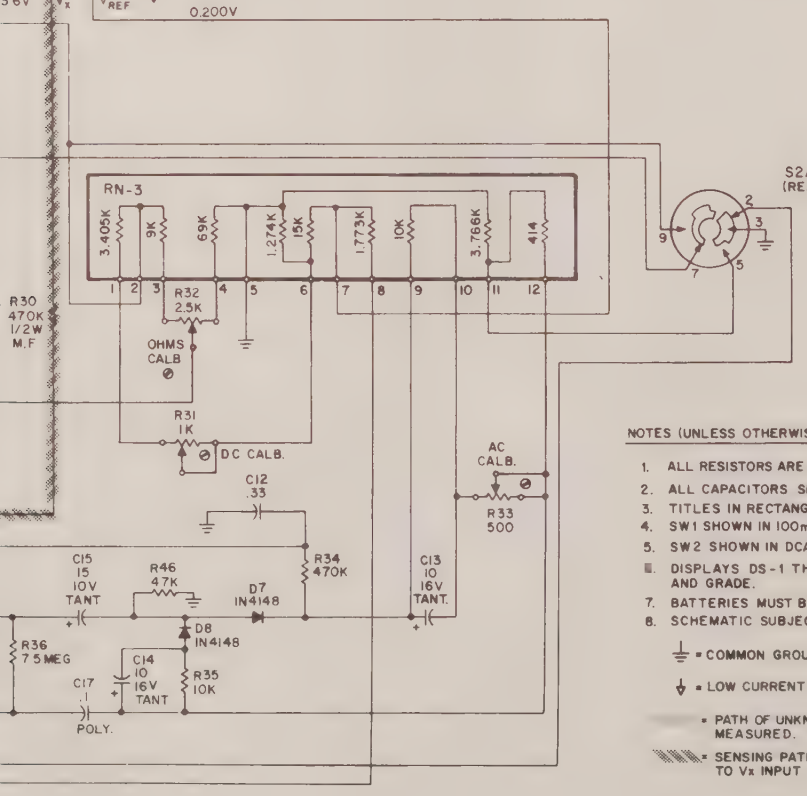
DRAWN BY B. NOVOSAD — DATE 6-22-77 — SCALE ANONE
APPROVED — APPROVED — IST MODEL 2810

SHEET | OF |

496	143	9	005


J1
C4 15 10V TANT
S3
D3 1A 600V
4 "C" CELLS USER INSTALLED
V DISPLAY
RN-2
40K
12.8K
11.2K
5.97K
8K
10K
R4 6.8K
C1 .01
R1 390
Q1 2N5818
Q2 2N5818
R2 8.2K
T1
D1 1A 600V
D2 1A 600V
Q3 2N5818
IC1A 324
C3 220 25V
C5 15 20V TANT.
C6 47 6V TANT.
D4 IN749A
IC1B
D5 IN4565
B&K PRECISION
MODEL 2810
DIGITAL MULTIMETER
496-143-9-006
DISPLAY (TOP) P.C.B.
MAIN (BOTTOM) P.C.B.
+12V
+8V
RN-1
9MEG
900K
90K
9K
1K
C21 .022 1KV
S2B (REAR)
J2
DCI
J3
F1 3AG 2A
D11 3A
D12 3A
C23 6.8pF
C22 6.8pF
C20 390pF
S1B (FRONT)
S1B (REAR)
IC 5 3130
Q7
D10 IN4007
R29 (P.T.C.)
C19 100pF
R28 51
Q6
S2B (FRONT)
R40 684, 1/2% 1/2W
R42 12.4K, 1% 1/4W
Q9 MPS6519
IC 7 307
10Ω CALB.
R43 2.5K
R44 9.09K, 1%, 1/4W
D14 IN4007
D13 IN4007
R25 0.9, 1/2% 1W
R26 9, 1/2% 1/2W
R27 90, 1/2% 1/2W
JUMPER
R24 .098, 1/2% 1/2W
R38 470K 1/2W, M.F.
D9 IN4148
Q8 2N5950
R37 4.7K
IC 6 301
C16 20pF
TO -3.6V
S2A (FRONT)
S1A (FRONT)
S1A (REAR)
FUNCTION
RANGE
R45 500
10Ω ZERO
R41 470K, 5% 1/2W, M.F.
TO -3.6V





LAST NUMBER	NOT USED
R46	R3
C33	C2, C18
D14	
Q9	
IC7	

FOR INTERNAL DISTRIBUTION ONLY

100, DCA

NOTES (UNLESS OTHERWISE SPECIFIED):

1. ALL RESISTORS ARE 1/4 W, 5%, DEPOSITED CARBON.
2. ALL CAPACITORS SHOWN IN MICROFARADS.
3. TITLES IN RECTANGLES DENOTE FRONT PANEL CONTROLS.
4. SW1 SHOWN IN 100mA POSITION.
5. SW2 SHOWN IN DCA POSITION.
6. DISPLAYS DS-1 THRU DS-4 MUST BE REPLACED WITH SAME TYPE AND GRADE.
7. BATTERIES MUST BE INSTALLED IN UNIT IN ALL MODES OF OPERATION.
8. SCHEMATIC SUBJECT TO CHANGE WITHOUT NOTICE.

⏚ = COMMON GROUND.

⏚ = LOW CURRENT GROUND.

= PATH OF UNKNOWN CURRENT BEING MEASURED.

= SENSING PATH FROM CURRENT SHUNTS TO Vx INPUT OF IC 2, PIN 3.

SHEET	OF		
496	143	9	006

NO.	CHANGES	BY CHKD
4	RELEASE FOR INTERNAL DISTRIBUTION ONLY 7-1-77 D.J.H.	
	RELEASED TO PRODUCTION 10/26/77 C/O 4440 SG	

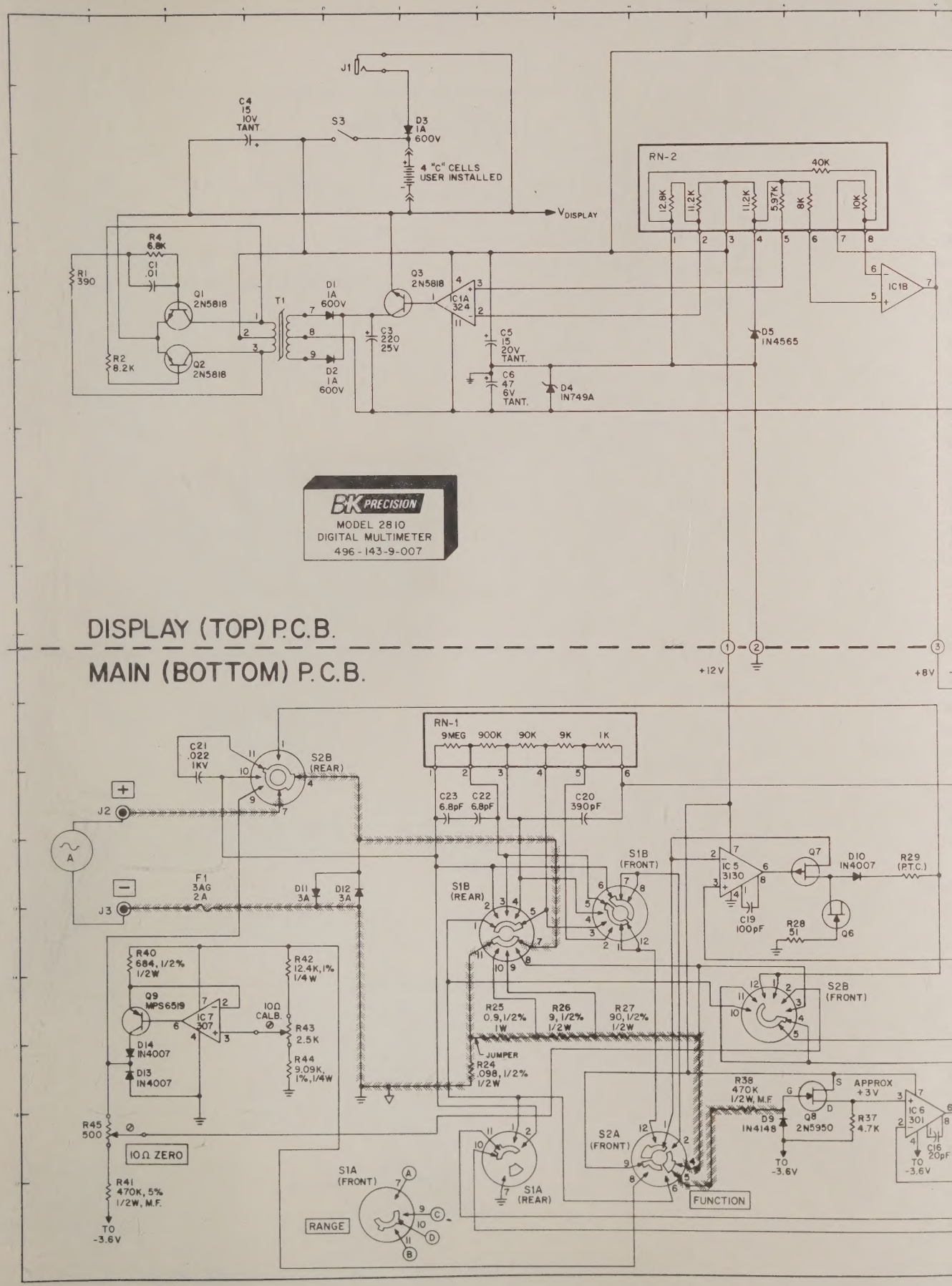
DYNASCAN CORPORATION
1801 W BELLE PLAINE CHICAGO ILLINOIS 60613

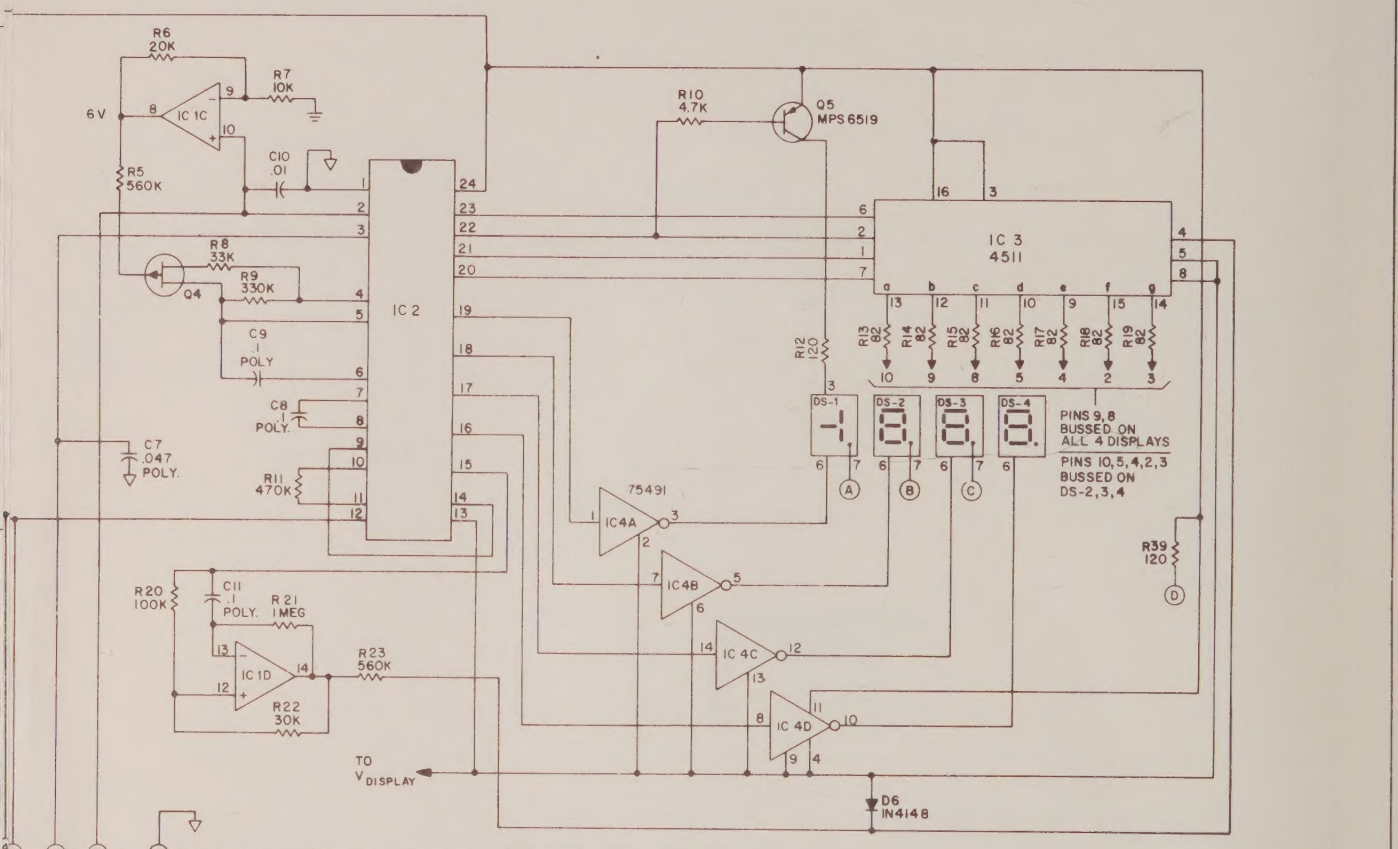
TITLE
#6 SCHEMATIC, 2810 DMM, ANALYZING

UNLESS OTHERWISE INDICATED
1 ALL DIMENSIONS ARE IN INCHES
2 ALL BENDS ARE 90°
3 TOLERANCES
FRACTIONS ± 1/64
DECIMAL ± .005
MOLES ± .003
ANGLES ± 0° 30'
DO NOT SCALE DRAWING

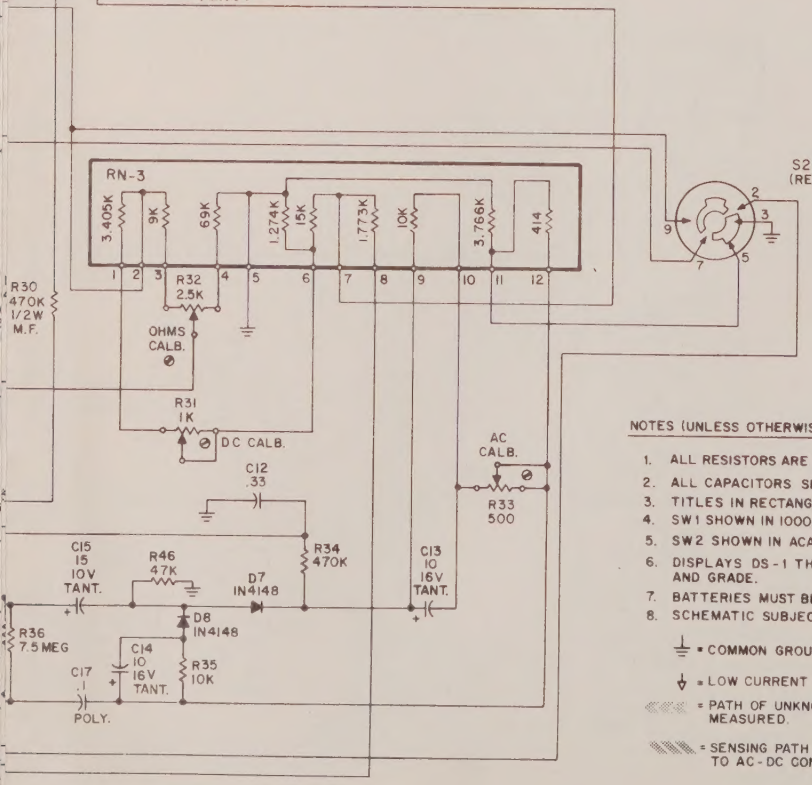
DRAWN BY	DATE	SCALE
APPROVED	6-21-77 APPROVED	NONE 1ST MODEL 2810

SHEET	OF		
496	143	9	006


J1
C4
15
10V
TANT.
S3
D3
1A
600V
4 "C" CELLS
USER INSTALLED
VDISPLAY
RN-2
40K
12.8K
11.2K
11.2K
5.97K
8K
10K
R4
6.8K
C1
.01
R1
390
Q1
2N5818
Q2
2N5818
R2
8.2K
T1
D1
1A
600V
D2
1A
600V
Q3
2N5818
IC1A
324
C3
220
25V
C5
15
20V
TANT.
C6
47
6V
TANT.
D4
IN749A
D5
IN4565
IC1B
BK PRECISION
MODEL 2810
DIGITAL MULTIMETER
496-143-9-007
DISPLAY (TOP) P.C.B.
MAIN (BOTTOM) P.C.B.
+12V
+8V
RN-1
9MEG
900K
90K
9K
1K
C21
.022
1KV
S2B
(REAR)
J2
J3
F1
3AG
2A
D11
3A
D12
3A
C23
6.8pF
C22
6.8pF
C20
390pF
S1B
(FRONT)
S1B
(REAR)
IC 5
3130
C19
100pF
Q7
D10
IN4007
R29
(P.T.C.)
R28
51
Q6
S2B
(FRONT)
R40
684, 1/2%
1/2W
Q9
MPS6519
IC 7
307
10Ω
CALB.
R42
12.4K, 1%
1/4W
R43
2.5K
R44
9.09K,
1%, 1/4W
D14
IN4007
D13
IN4007
R25
0.9, 1/2%
1W
R26
9, 1/2%
1/2W
R27
90, 1/2%
1/2W
JUMPER
R24
.098, 1/2%
1/2W
R38
470K
1/2W, M.F
APPROX
+3V
Q8
2N5950
D9
IN4148
R37
4.7K
IC 6
301
C16
20pF
TO
-3.6V
R45
500
10Ω ZERO
R41
470K, 5%
1/2W, M.F.
TO
-3.6V
S1A
(FRONT)
S1A
(REAR)
RANGE
S2A
(FRONT)
FUNCTION



LAST NUMBER	NOT USED
R46	R3
C23	C2, C18
D14	
Q9	
IC7	



FOR INTERNAL DISTRIBUTION ONLY

1000, ACA

NOTES (UNLESS OTHERWISE SPECIFIED):

1. ALL RESISTORS ARE 1/4 W, 5%, DEPOSITED CARBON.
2. ALL CAPACITORS SHOWN IN MICROFARADS.
3. TITLES IN RECTANGLES DENOTE FRONT PANEL CONTROLS.
4. SW1 SHOWN IN 1000mA POSITION.
5. SW2 SHOWN IN ACA POSITION.
6. DISPLAYS DS-1 THRU DS-4 MUST BE REPLACED WITH SAME TYPE AND GRADE.
7. BATTERIES MUST BE INSTALLED IN UNIT IN ALL MODES OF OPERATION.
8. SCHEMATIC SUBJECT TO CHANGE WITHOUT NOTICE.

⏚ = COMMON GROUND.

⏚ = LOW CURRENT GROUND.

= PATH OF UNKNOWN CURRENT BEING MEASURED.

= SENSING PATH FROM CURRENT SHUNT TO AC-DC CONVERTER.

SHEET	OF		
496	143	9	007

INITIAL	CHANGES	BY / CHKD
	RELEASE FOR INTERNAL DISTRIBUTION ONLY 7-1-77 D.J.H.	
	RELEASED TO PRODUCTION C/NO #1440 7-26-77 SG	

DYNASCAN CORPORATION
1801 W. BELLE PLAINE CHICAGO ILLINOIS 60613

TITLE
#7 SCHEMATIC, 2810 DMM, ANALYZING

UNLESS OTHERWISE INDICATED	DRAWN BY	DATE	SCALE
1. ALL DIMENSIONS ARE IN INCHES 2. ALL BENDS ARE 90° 3. TOLERANCES FRACTIONS ± 1/64 DECIMAL ± .005 HOLES ± .003 ANGLES ± 2° 30' DO NOT SCALE DRAWING	P. HAFLIGER	6-21-77	NONE
	APPROVED	APPROVED	1ST MODEL 2810

SHEET	OF		
496	143	9	007

www.manualsplus.com
1034057